



National Comprehensive  
Cancer Network®

NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®)

# Distress Management

Version 2.2024 — March 22, 2024

**NCCN.org**

NCCN Guidelines for Patients® available at [www.nccn.org/patients](http://www.nccn.org/patients)

**Continue**



**\*Michelle B. Riba, MD, MS/Chair**  $\theta$   
University of Michigan Rogel Cancer Center

**Jessica Vanderlan, PhD/Vice-Chair**  $\theta$   
Siteman Cancer Center at Barnes-Jewish Hospital and Washington University School of Medicine

**\*Kristine A. Donovan, PhD, MBA**  $\theta$   
**Immediate Past Vice-Chair**  
Moffitt Cancer Center

**Kausar Ahmed, PhD**  $\dagger$   
UCLA Jonsson Comprehensive Cancer Center

**Barbara Andersen, PhD**  $\theta$   
The Ohio State University  
Comprehensive Cancer Center -  
James Cancer Hospital and  
Solove Research Institute

**Ilana Braun, MD**  $\theta$   
Dana-Farber/Brigham and Women's  
Cancer Center

**William S. Breitbart, MD**  $\theta$   $\text{P}$   $\text{£}$   
Memorial Sloan Kettering Cancer Center

**Benjamin W. Brewer, PsyD**  $\theta$   
University of Colorado Cancer Center

**Cheyenne Corbett, PhD**  $\theta$   
Duke Cancer Institute

**Jesse Fann, MD, MPH**  $\theta$   
Fred Hutchinson Cancer Center

**Jill Farabelli, LCSW,APHSW-C**  $\text{£}$   
Abramson Cancer Center  
at the University of Pennsylvania

**Stewart Fleishman, MD**  $\text{£}$   $\theta$   
Consultant

**Sofia Garcia, PhD**  $\theta$   
Robert H. Lurie Comprehensive Cancer  
Center of Northwestern University

**Donna B. Greenberg, MD**  $\theta$   $\text{P}$   
Mass General Cancer Center

**Rev. George F. Handzo, MA, MDiv**  $\text{£}$   
Consultant

**Laura Herald Hoofring, MSN, APRN**  $\#$   $\theta$   $\dagger$   
The Sidney Kimmel Comprehensive  
Cancer Center at Johns Hopkins

**Amy Horyna, MSW, LCSW, OSW-C**  $\text{£}$   
Huntsman Cancer Institute  
at the University of Utah

**Chao-Hui Huang, PhD, MEd, MA**  $\theta$   
O'Neal Comprehensive Cancer Center at UAB

**Sean Hutchinson, MD**  $\text{£}$   
UT Southwestern Simmons  
Comprehensive Cancer Center

**Shelley Johns, PsyD**  $\theta$   
Indiana University Melvin and Bren Simon  
Comprehensive Cancer Center

**Jennifer Keller, LSW, MSS**  $\text{£}$   
Fox Chase Cancer Center

**Sheila Lahijani, MD**  $\theta$   
Stanford Cancer Institute

**Sara Martin, MD**  $\text{£}$   
Vanderbilt-Ingram Cancer Center

**Shehzad K. Niazi, MD**  $\theta$   
Mayo Clinic Comprehensive Cancer Center

**Megan Pailler, PhD**  $\theta$   
Roswell Park Comprehensive Cancer Center

**Francine Parnes, JD, MA**  $\text{¥}$   
Patient Advocate

**Vinay Rao, DO**  $\text{£}$   
Yale Cancer Center/Smilow Cancer Hospital

**Xiomara Rocha-Cadman, MD**  
City of Hope National Medical Center

**Eli Scher, DO**  $\text{§}$   
Case Comprehensive Cancer Center/  
University Hospitals Seidman Cancer  
Center and Cleveland Clinic Taussig  
Cancer Institute

**Jessica Schuster, MD**  $\text{§}$   
University of Wisconsin  
Carbone Cancer Center

**Melissa Teply, MD**  $\text{P}$   $\text{£}$   
Fred & Pamela Buffett Cancer Center

**Lora M. A. Thompson, PhD**  $\theta$   
Moffitt Cancer Center

**Angela Usher, PhD**  $\dagger$   $\text{£}$   
UC Davis Comprehensive Cancer Center

**Alan D. Valentine, MD**  $\theta$   
The University of Texas  
MD Anderson Cancer Center

### NCCN

**Susan Darlow, PhD**  
**Nicole McMillian, MS**  
**Sarah Montgomery, BA**

$\text{P}$  Internal medicine  
 $\dagger$  Medical oncology  
 $\#$  Nursing  
 $\text{¥}$  Patient advocacy  
 $\theta$  Psychiatry, psychology, including health behavior  
 $\text{£}$  Supportive care including palliative, pain management, pastoral care, and oncology social work  
 $*$  Discussion Section Writing Committee



### [NCCN Distress Management Panel Members](#) [Summary of the Guidelines Updates](#)

#### **Key Terms:**

- [Distress and Definition of Distress in Cancer \(DIS-1\)](#)
- [Standards of Care for Distress Management \(DIS-2\)](#)

### [Overview of Evaluation and Treatment Process \(DIS-3\)](#) [Management of Expected Distress Symptoms \(DIS-4\)](#)

### [NCCN Distress Thermometer and Problem List \(DIS-A\)](#) [Psychosocial Distress Patient Characteristics \(DIS-B\)](#)

### [Psychological/Psychiatric Treatment Guidelines \(DIS-5\)](#) [Social Work and Counseling Services: Practical Problems \(DIS-22\)](#) [Social Work and Counseling Services: Psychosocial Problems \(DIS-23\)](#) [Chaplaincy Care \(DIS-24\)](#) [Principles for Implementation of Standards and Distress Management Guidelines \(DIS-25\)](#) [Institutional Evaluation of Standards of Care \(DIS-26\)](#)

### [Abbreviations \(ABBR-1\)](#)

**For Non-Pain Symptom Management and Palliative Issues, see the [NCCN Guidelines for Palliative Care](#)**  
**For Cancer Pain, see the [NCCN Guidelines for Adult Cancer Pain](#)**

**Clinical Trials:** NCCN believes that the best management for any patient with cancer is in a clinical trial.

Participation in clinical trials is especially encouraged.

Find an NCCN Member Institution:  
<https://www.nccn.org/home/member-institutions>.

**NCCN Categories of Evidence and Consensus:** All recommendations are category 2A unless otherwise indicated.

See [NCCN Categories of Evidence and Consensus](#).

The NCCN Guidelines® are a statement of evidence and consensus of the authors regarding their views of currently accepted approaches to treatment. Any clinician seeking to apply or consult the NCCN Guidelines is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient's care or treatment. The National Comprehensive Cancer Network® (NCCN®) makes no representations or warranties of any kind regarding their content, use or application and disclaims any responsibility for their application or use in any way. The NCCN Guidelines are copyrighted by National Comprehensive Cancer Network®. All rights reserved. The NCCN Guidelines and the illustrations herein may not be reproduced in any form without the express written permission of NCCN. ©2024.



**Terminologies in all NCCN Guidelines are being actively modified to advance the goals of equity, inclusion, and representation.**

**Updates in Version 2.2024 of the NCCN Guidelines for Distress Management from Version 1.2024 include:**

#### [MS-1](#)

- The discussion section has been updated to reflect the changes in the algorithm.

**Updates in Version 1.2024 of the NCCN Guidelines for Distress Management from Version 2.2023 include:**

#### **Global Changes**

- Referral to psychiatry recommendations updated throughout the guideline.

#### [DIS-2](#)

- Bullet added: Because experiences of prejudice and discrimination may contribute significantly to distress, particularly among individuals with mental illness and other groups that have been marginalized or made vulnerable, health care systems should ensure a culture of diversity, equity, and inclusiveness in the management of cancer-related distress.

#### [DIS-A](#)

- Problem List, social concerns, bullet added: Prejudice or discrimination

#### [DIS-B](#)

- Patients at increased risk for distress
  - ▶ 7th bullet, 12th sub-bullet modified: *Discrimination or prejudice*

#### [DIS-6](#)

- Evaluation, impairment present
  - ▶ Thought disorder/psychosis pathway modified: ~~Arrange for ongoing primary psychiatric management~~ *Evaluate for safety and consider referral to psychiatry.*

#### [DIS-8](#)

- Option modified: ~~pharmacotherapy~~ *psychiatric medication* (Also for DIS-20).

#### [DIS-9](#)

- Treatment, bullet modified: "Consider referral to social work, ~~and~~ counseling, ~~services~~ or chaplaincy care..." (Also for DIS-11, DIS-16, DIS-17).

#### [DIS-10](#)

- Treatment, no/partial response, bullet 4 modified: Re-evaluate ~~psychotherapeutic intervention and consider higher level care with intensive outpatient program~~ *diagnosis and treatment* (Also for DIS-12).

#### [DIS-13](#)

- Evaluation, option modified: No active ~~signs~~ *symptoms* of psychosis.

#### [DIS-14](#)

- Consider ~~transfer~~ *admission* to psychiatric unit/hospital

#### [DIS-15](#)

- Reevaluate ~~medication (consider antipsychotics)~~, psychotherapy, support, education

#### [DIS-20](#)

- Motivated to quit/cut back, bullet 1 modified: Referral to *addiction medicine* or outpatient substance use program.

**Note: All recommendations are category 2A unless otherwise indicated.**

**Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.**



### “DISTRESS”

**The term “distress” was chosen because it:**

- Is more acceptable and less stigmatizing than “psychiatric,” “psychosocial,” or “emotional”
- Sounds “normal” and less embarrassing
- Can be defined and measured by self-report

### DEFINITION OF DISTRESS IN CANCER

**Distress is a multifactorial unpleasant experience of a psychological (ie, cognitive, behavioral, emotional), social, spiritual, and/or physical nature that may interfere with one’s ability to cope effectively with cancer, its physical symptoms, and its treatment. Distress extends along a continuum, ranging from common normal feelings of vulnerability, sadness, and fears to problems that can become disabling, such as depression, anxiety, panic, social isolation, and existential and spiritual crisis.**

**Note: All recommendations are category 2A unless otherwise indicated.**

**Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.**



### STANDARDS OF CARE FOR DISTRESS MANAGEMENT

- Distress should be recognized, monitored, documented, and treated promptly at all stages of disease and in all settings.
- Screening should identify the level and nature of the distress.
- Ideally, patients should be screened for distress at every medical visit as a hallmark of patient-centered care. At a minimum, patients should be screened for distress at their initial visit, at appropriate intervals, and as clinically indicated, especially with changes in disease status (ie, remission, recurrence, progression, treatment-related complications).
- Distress should be assessed and managed according to clinical practice guidelines.
- Interdisciplinary institutional committees should be formed to implement standards for distress management.
- Educational and training programs should be developed to ensure that health care professionals and certified chaplains have knowledge and skills in the assessment and management of distress.
- Licensed mental health professionals and certified chaplains experienced in psychosocial aspects of cancer should be readily available as staff members or by referral.
- Medical care contracts should include adequate reimbursement for services provided by mental health professionals.
- Clinical health outcomes measurement should include assessment of the psychosocial domain (eg, quality of life and patient and family satisfaction).
- Patients, families, and treatment teams should be informed that distress management is an integral part of total medical care and is provided with appropriate information about psychosocial services in the treatment center and the community.
- Quality of distress management programs/services should be included in institutional continuous quality improvement (CQI) projects.
- Because experiences of prejudice and discrimination may contribute significantly to distress, particularly among individuals with mental illness and other groups that have been marginalized or made vulnerable, health care systems should ensure a culture of diversity, equity, and inclusiveness in the management of cancer-related distress.

**Note:** All recommendations are category 2A unless otherwise indicated.

**Clinical Trials:** NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.





### MANAGEMENT OF EXPECTED DISTRESS SYMPTOMS

#### EXPECTED DISTRESS SYMPTOMS<sup>d</sup>

- Fear and worry about the future
- Concerns about illness
- Sadness about loss of usual health
- Anger, feeling out of control
- Poor sleep ([NCCN Guidelines for Survivorship: Sleep Disorders \[SSD-1\]](#))
- Poor appetite
- Poor concentration
- Preoccupation with thoughts of illness and death
- Concerns with treatment side effects
- Concerns about social role (eg, as parent)
- Spiritual/existential concerns
- Financial worries

#### INTERVENTIONS

- Acknowledge/validate distress
- Clarify diagnosis, treatment options, and side effects
  - Be sure patient understands disease and treatment options
  - Discuss advance care planning
  - Refer to appropriate patient education materials (eg, [NCCN Guidelines for Patients](#))
- Educate patient that points of transition may bring increased vulnerability to distress
- Ensure continuity of care
- Mobilize resources
- Consider medication to manage symptoms:
  - Analgesics ([NCCN Guidelines for Adult Cancer Pain](#))
  - Anxiolytics
  - Hypnotics
  - Antidepressants
  - Psychostimulants
- Support groups and/or individual counseling including evidence-based interventions
- Family/couple/caregiver support and counseling
- Relaxation, mindfulness, meditation, creative therapies (eg, art, dance, music)
- Spiritual support
- Exercise
- Assess and strengthen coping strategies

#### RE-EVALUATION

Monitor functional level and reevaluate as appropriate

Stable or diminished distress

Continue monitoring and support

Increased or persistent distress

See [Distress Score ≥4 or moderate to severe distress \(DIS-3\)](#)

<sup>d</sup> [Psychosocial Distress Patient Characteristics \(DIS-B\)](#).

**Note:** All recommendations are category 2A unless otherwise indicated.  
**Clinical Trials:** NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.





# NCCN Guidelines Version 2.2024

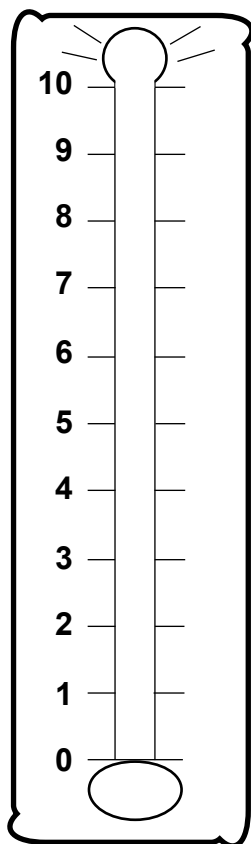
## Distress Management

### NCCN DISTRESS THERMOMETER

Distress is an unpleasant experience of a mental, physical, social, or spiritual nature. It can affect the way you think, feel, or act. Distress may make it harder to cope with having cancer, its symptoms, or its treatment.

**Instructions:** Please circle the number (0–10) that best describes how much distress you have been experiencing in the past week, including today.

Extreme distress



No distress

### PROBLEM LIST

Have you had concerns about any of the items below in the past week, including today? (Mark all that apply)

#### Physical Concerns

- Pain
- Sleep
- Fatigue
- Tobacco use
- Substance use
- Memory or concentration
- Sexual health
- Changes in eating
- Loss or change of physical abilities

#### Emotional Concerns

- Worry or anxiety
- Sadness or depression
- Loss of interest or enjoyment
- Grief or loss
- Fear
- Loneliness
- Anger
- Changes in appearance
- Feelings of worthlessness or being a burden

#### Social Concerns

- Relationship with spouse or partner
- Relationship with children
- Relationship with family members
- Relationship with friends or coworkers
- Communication with health care team
- Ability to have children
- Prejudice or discrimination

#### Practical Concerns

- Taking care of myself
- Taking care of others
- Work
- School
- Housing
- Finances
- Insurance
- Transportation
- Child care
- Having enough food
- Access to medicine
- Treatment decisions

#### Spiritual or Religious Concerns

- Sense of meaning or purpose
- Changes in faith or beliefs
- Death, dying, or afterlife
- Conflict between beliefs and cancer treatments
- Relationship with the sacred
- Ritual or dietary needs

#### Other Concerns:

---



---



---

**Note:** All recommendations are category 2A unless otherwise indicated.

**Clinical Trials:** NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

**PSYCHOSOCIAL DISTRESS PATIENT CHARACTERISTICS<sup>1</sup>****PATIENTS AT INCREASED RISK FOR DISTRESS**

- History of psychiatric disorder or substance use disorder
- History of depression/suicide attempt
- History of trauma and/or abuse  
(ie, physical, sexual, emotional, verbal)
- Cognitive impairment
- Communication barriers<sup>2</sup>
- Severe comorbid illnesses
- Social issues:
  - ◊ Family/caregiver conflicts
  - ◊ Inadequate social support
  - ◊ Social isolation
  - ◊ Living alone
  - ◊ Financial problems
  - ◊ Limited access to medical care
  - ◊ Young or dependent children
  - ◊ Adolescent and younger adults<sup>3</sup>
  - ◊ Sexual health concerns
  - ◊ Fertility concerns<sup>3</sup>
  - ◊ Immigration status
  - ◊ Discrimination or prejudice
  - ◊ Loss of stable housing/shelter/living environment
  - ◊ Current substance use
  - ◊ Other stressors
- Spiritual/religious concerns
- Uncontrolled symptoms
- Cancer type associated with risk of depression  
(eg, pancreatic cancer, head and neck cancer)

**PERIODS OF INCREASED VULNERABILITY**

- Diagnosis
  - ◊ Finding and investigating a suspicious symptom
  - ◊ Undergoing diagnostic workup
  - ◊ Finding out the diagnosis
  - ◊ Receiving and living with an advanced cancer diagnosis
  - ◊ Learning about genetic/familial cancer risk
- Treatment
  - ◊ Awaiting treatment
  - ◊ Experiencing an increase in symptom burden
  - ◊ Experiencing significant treatment-related complication(s)
  - ◊ Experiencing an admission to/discharge from hospital
  - ◊ Experiencing changes in treatment modality
  - ◊ Experiencing disease that progresses during treatment
- End of active treatment
  - ◊ Undergoing medical follow-up and surveillance
  - ◊ Transitioning to survivorship
  - ◊ Experiencing recurrence/progression of disease
  - ◊ Transitioning to end-of-life care
  - ◊ Experiencing grief and loss (eg, relative, friend, pet)

<sup>1</sup> For site-specific symptoms with major psychosocial consequences, see Holland JC, Golant M, Greenberg DB, et al. Psycho-oncology: A quick reference on the psychosocial dimensions of cancer symptom management. Oxford University Press, 2015.

<sup>2</sup> Communication barriers include language, literacy, and physical barriers.

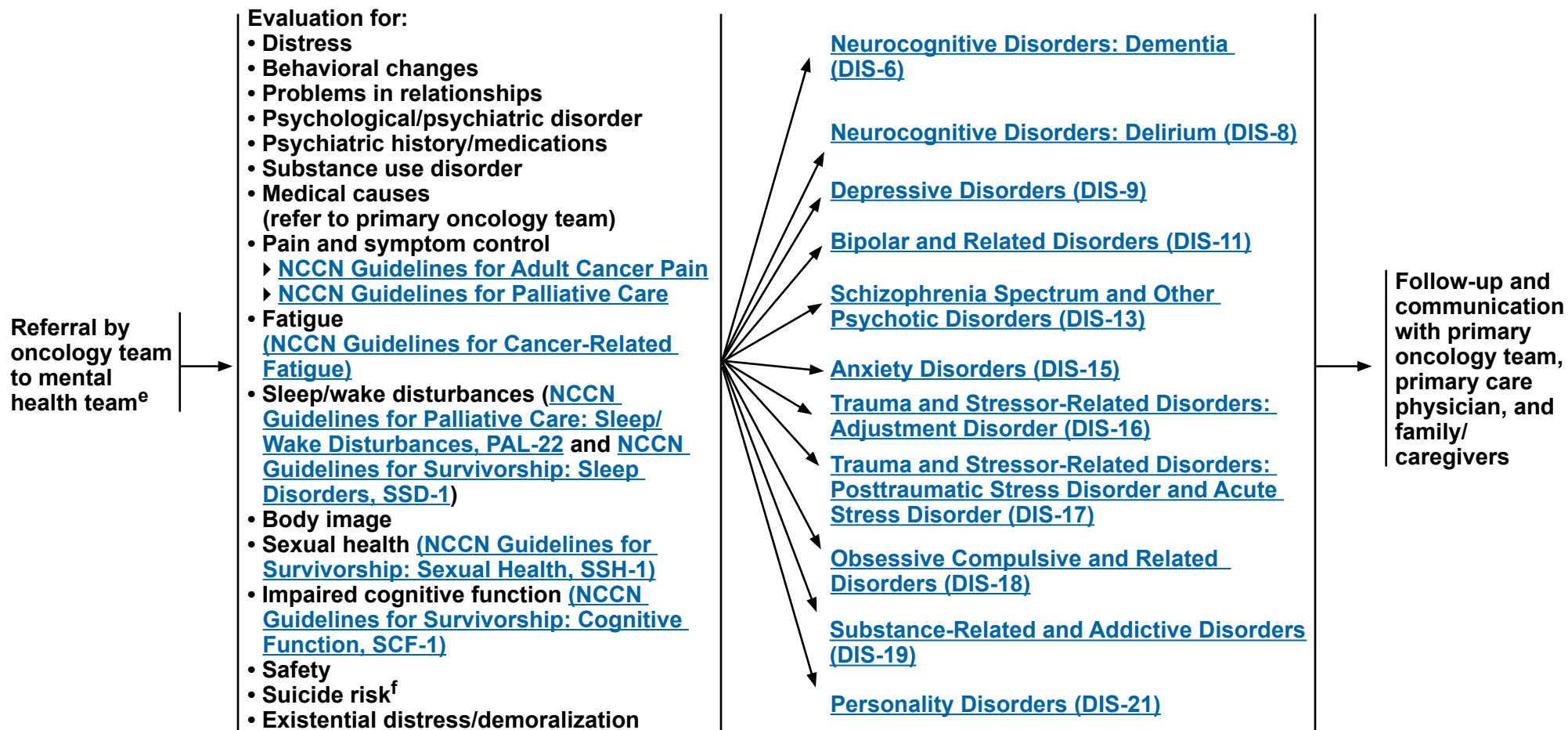
<sup>3</sup> [NCCN Guidelines for Adolescent and Young Adult \(AYA\) Oncology](#).

**Note: All recommendations are category 2A unless otherwise indicated.**

**Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.**



### PSYCHOLOGICAL/PSYCHIATRIC TREATMENT GUIDELINES



<sup>e</sup> Psychiatrist, psychologist, advanced practice clinicians, and/or social worker.

<sup>f</sup> Formal assessment should be conducted as per [The Joint Commission's Suicide Prevention Recommendations](#).

**Note:** All recommendations are category 2A unless otherwise indicated.

**Clinical Trials:** NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

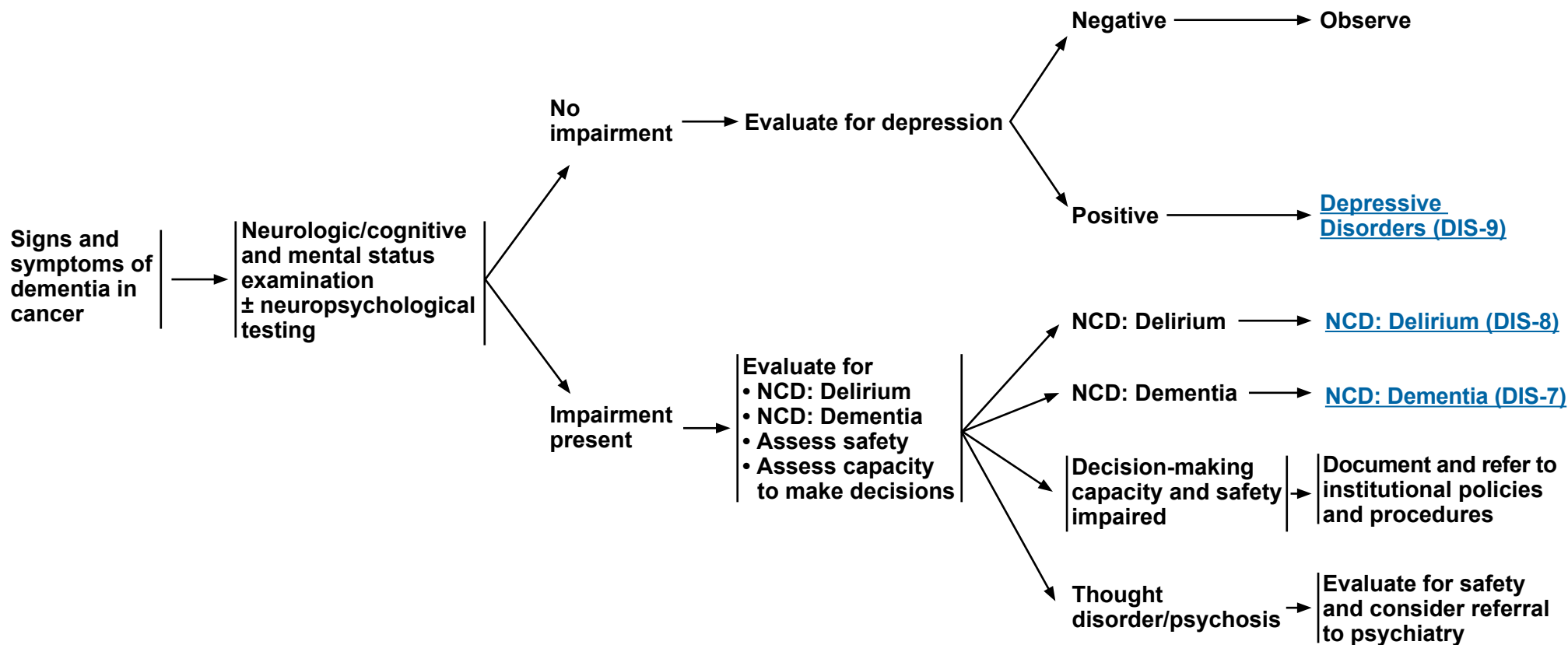


# NCCN Guidelines Version 2.2024

## Distress Management

### NEUROCOGNITIVE DISORDERS (NCD): DEMENTIA

### EVALUATION



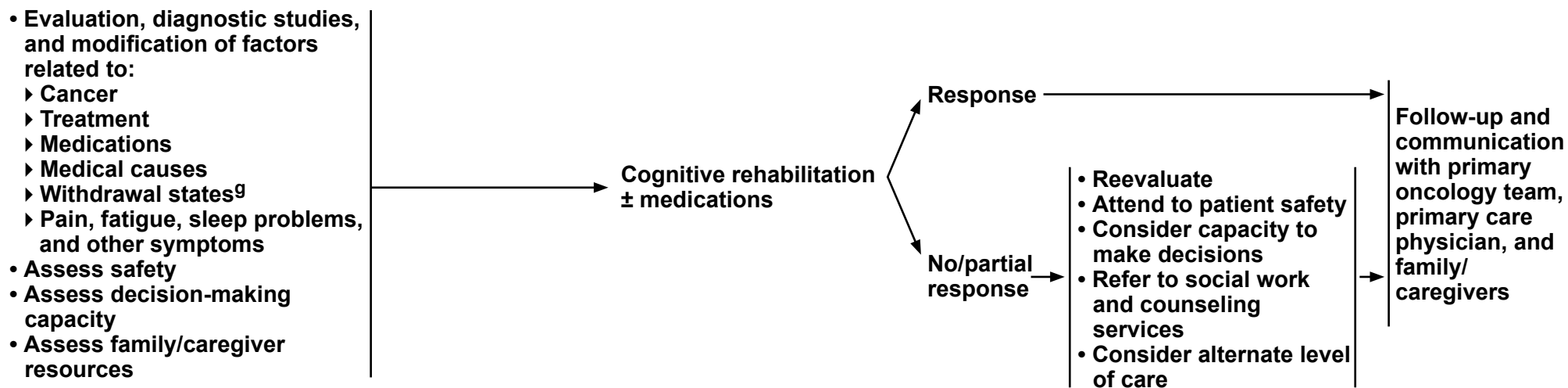
[Return to Psychological/Psychiatric Treatment Guidelines \(DIS-5\)](#)

**Note:** All recommendations are category 2A unless otherwise indicated.  
**Clinical Trials:** NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

**NCD: DEMENTIA (continued)**

**TREATMENT**

**FOLLOW-UP**



<sup>9</sup> Management of withdrawal states may vary depending upon the substance.

[Return to Psychological/Psychiatric Treatment Guidelines \(DIS-5\)](#)

**Note: All recommendations are category 2A unless otherwise indicated.**  
**Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.**

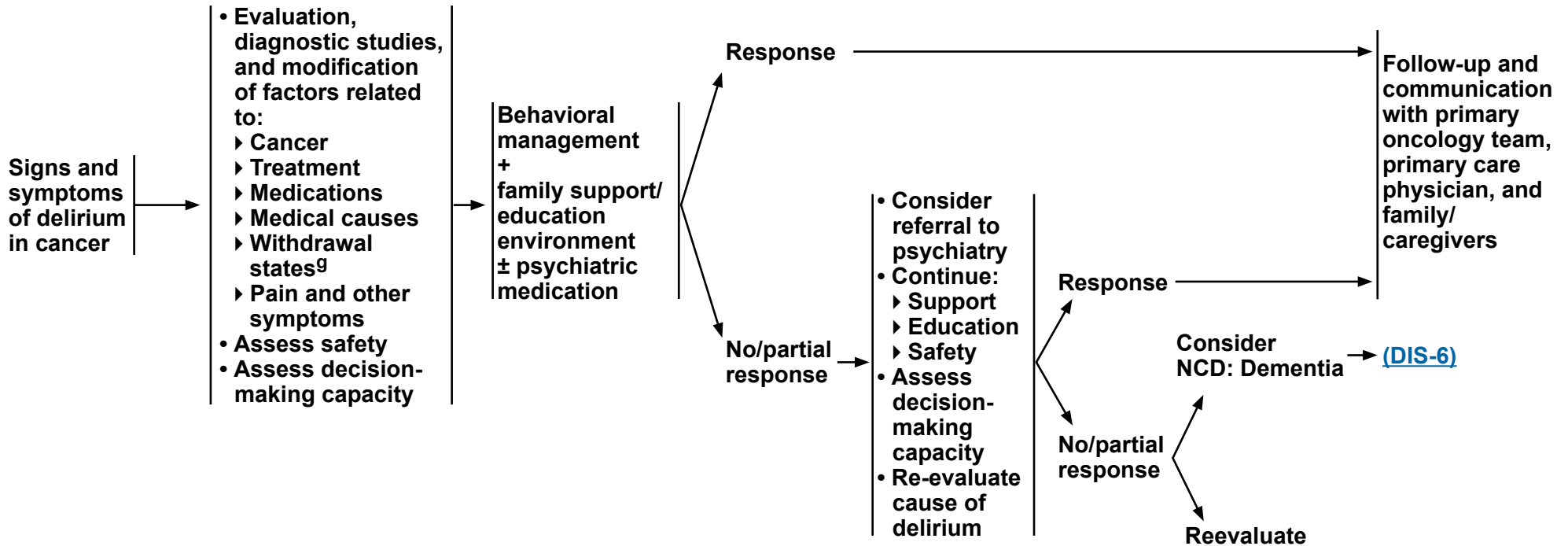


**NCD: DELIRIUM**

**EVALUATION**

**TREATMENT**

**FOLLOW-UP**



<sup>9</sup> Management of withdrawal states may vary depending upon the substance.

[Return to Psychological/Psychiatric Treatment Guidelines \(DIS-5\)](#)

**Note:** All recommendations are category 2A unless otherwise indicated.  
**Clinical Trials:** NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.



# NCCN Guidelines Version 2.2024

## Distress Management

### DEPRESSIVE DISORDERS

### EVALUATION

### TREATMENT

### FOLLOW-UP

Signs and symptoms of the following disorders:

- Depressive disorders related to medical illness
- Major depressive disorders
- Persistent depressive disorder

- Evaluation, diagnostic studies, and modification of factors related to:
  - Cancer
  - Treatment
  - Medications
  - Medical causes
  - Withdrawal states
  - Pain
  - Fatigue
  - Sleep disruption
  - Anorexia
  - Anhedonia
  - Decreased interest in activities
  - Wish to die
  - Suicidal thoughts
  - Mood swings
  - Poor concentration
  - Demoralization
  - Anxiety
- Consider psychosocial and spiritual concerns
- Assess decision-making capacity
- Assess safety
- Evaluate family/home environment
- Evaluate alcohol and recreational drug use
- Evaluate using validated tool (eg, PHQ-2 or PHQ-9)

No danger to self or others →

Danger to self or others →

- Psychotherapy
- Optimal management of physical symptoms contributing to depression
- Psychotropic medication (category 1)
- Mental health treatment and follow-up/patient and family education
- Consider referral to psychiatry
- Consider referral to social work, counseling, or chaplaincy care. See [Social Work and Counseling Services \(DIS-22\)](#) or [Chaplaincy Care \(DIS-24\)](#)

- Further evaluate suicide and homicide risk
- Consider directing patient to the emergency department for further psychiatric evaluation
- Assure patient safety:
  - Consider referral to psychiatry
  - Increase monitoring
  - Safety planning
  - Remove any guns and other dangerous objects
- Assure safety of others
- Consider referral to social work, counseling, or chaplaincy care. See [Social Work and Counseling Services \(DIS-22\)](#) or [Chaplaincy Care \(DIS-24\)](#)

Response →

No/partial response →

Follow-up and communication with primary oncology team, primary care physician, and family/caregivers

[\(DIS-10\)](#)

Mental health treatment and follow-up/patient and family education

Follow-up and communication with primary oncology team, primary care physician, and family/caregivers

[Return to Psychological/Psychiatric Treatment Guidelines \(DIS-5\)](#)

**Note:** All recommendations are category 2A unless otherwise indicated.  
**Clinical Trials:** NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

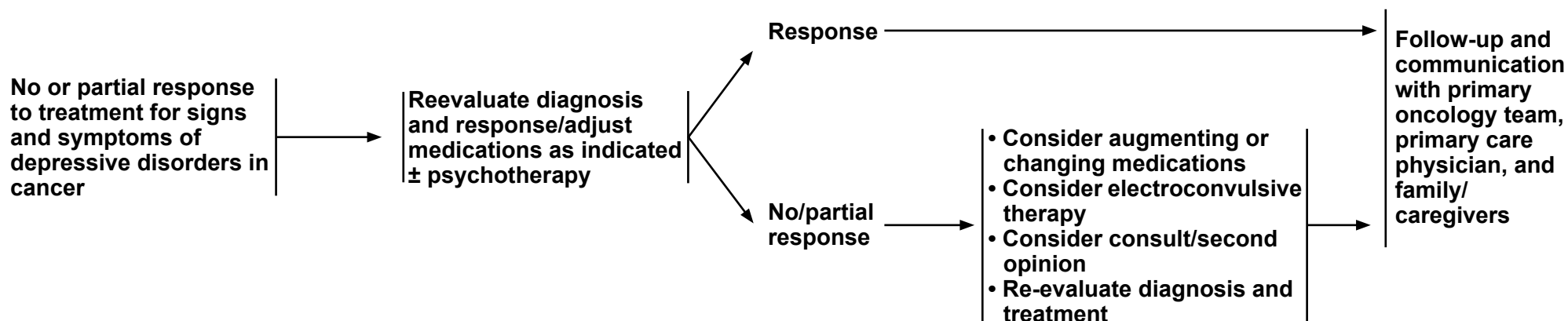


### DEPRESSIVE DISORDERS (continued)

### EVALUATION

### TREATMENT

### FOLLOW-UP



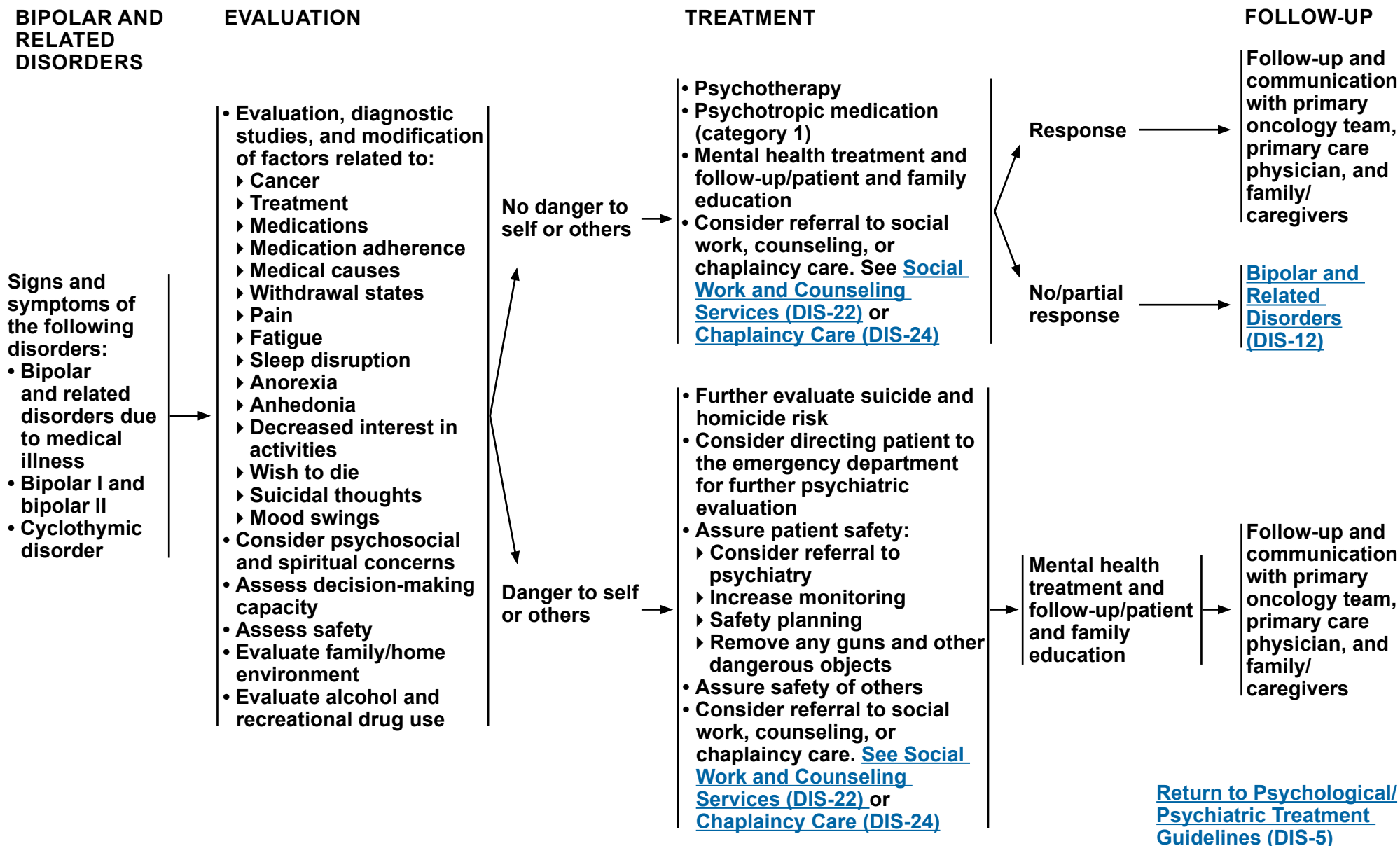
[Return to Psychological/Psychiatric Treatment Guidelines \(DIS-5\)](#)

**Note:** All recommendations are category 2A unless otherwise indicated.  
**Clinical Trials:** NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.



# NCCN Guidelines Version 2.2024

## Distress Management



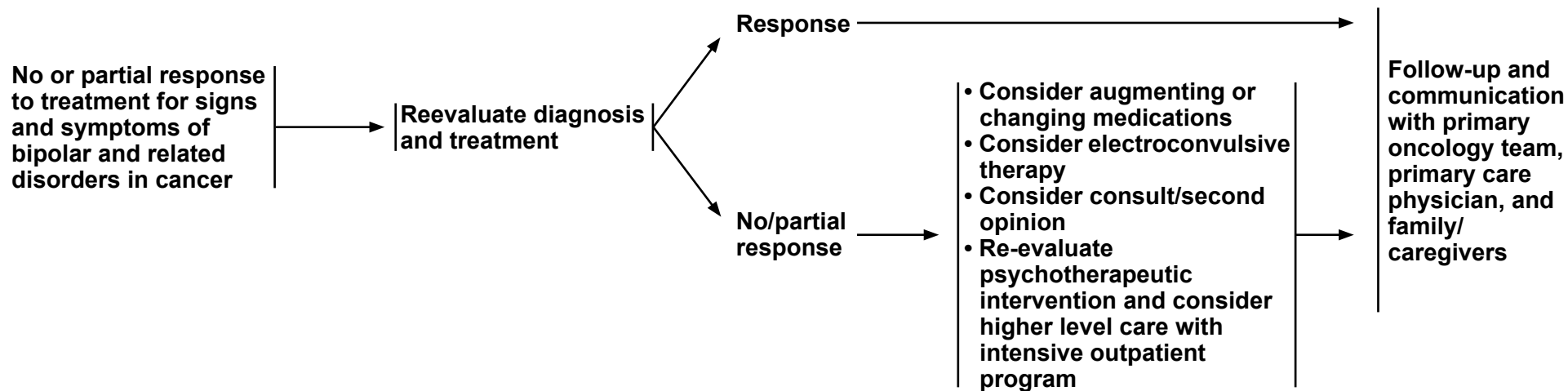
Note: All recommendations are category 2A unless otherwise indicated.  
 Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

### BIPOLAR AND RELATED DISORDERS (continued)

### EVALUATION

### TREATMENT

### FOLLOW-UP



[Return to Psychological/Psychiatric Treatment Guidelines \(DIS-5\)](#)

**Note:** All recommendations are category 2A unless otherwise indicated.  
**Clinical Trials:** NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

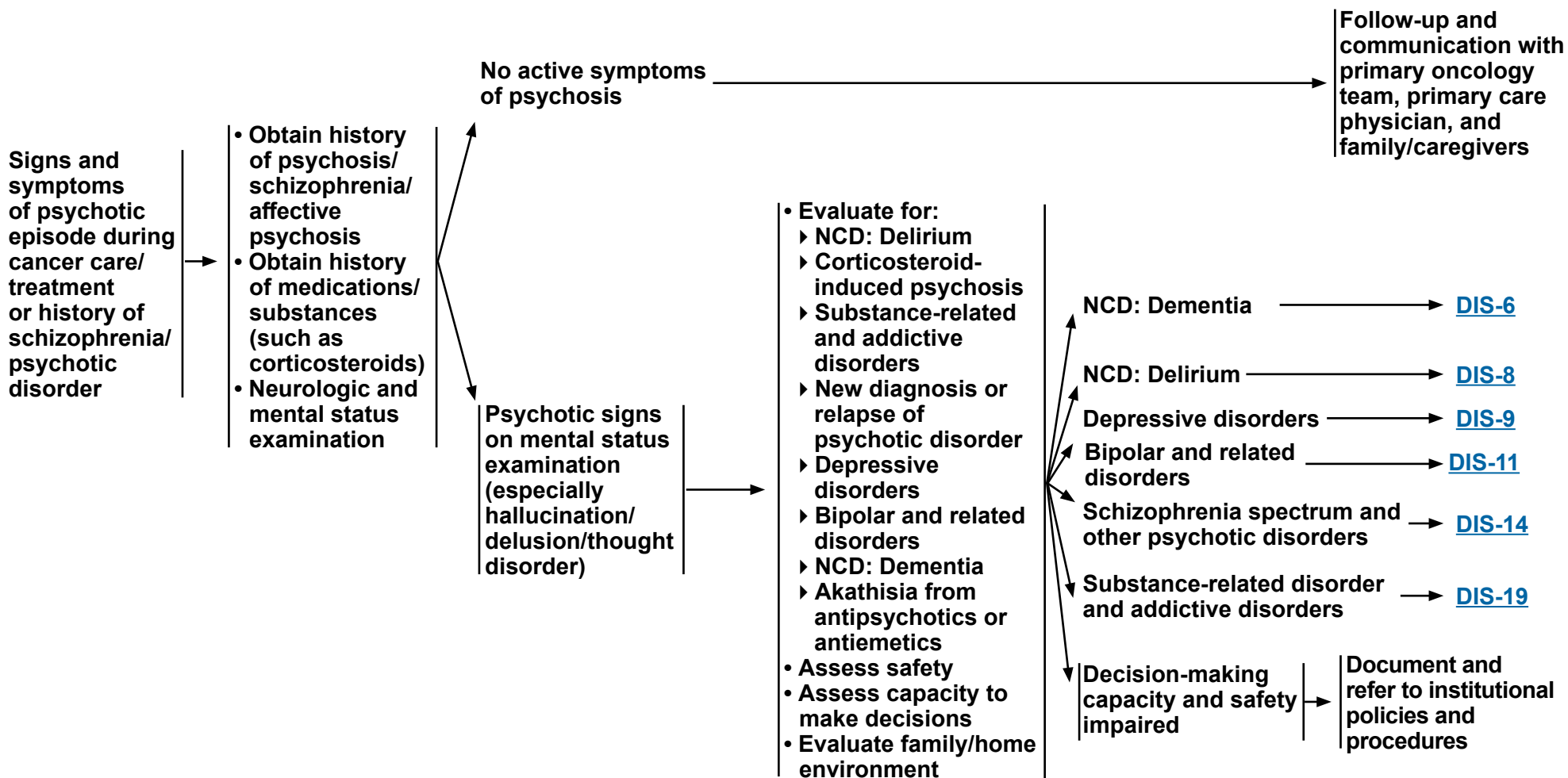


# NCCN Guidelines Version 2.2024

## Distress Management

### SCHIZOPHRENIA SPECTRUM AND OTHER PSYCHOTIC DISORDERS

### EVALUATION



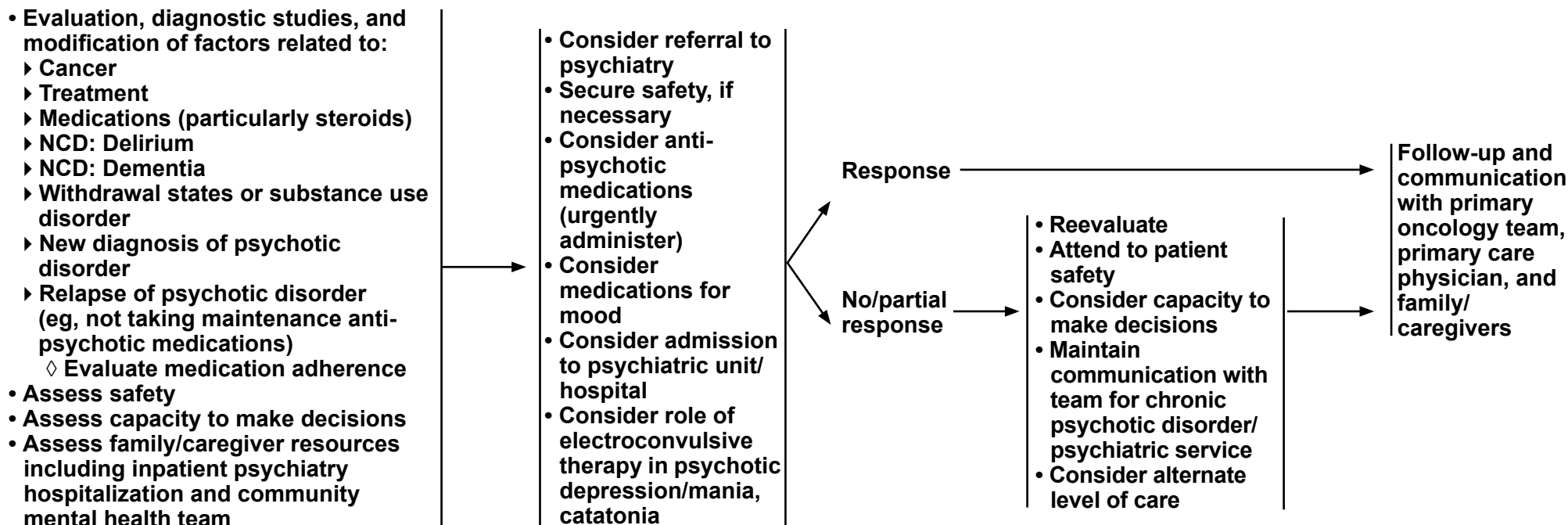
[Return to Psychological/Psychiatric Treatment Guidelines \(DIS-5\)](#)

**Note:** All recommendations are category 2A unless otherwise indicated.  
**Clinical Trials:** NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.

### SCHIZOPHRENIA SPECTRUM AND OTHER PSYCHOTIC DISORDERS (continued)

### TREATMENT

### FOLLOW-UP



[Return to Psychological/Psychiatric Treatment Guidelines \(DIS-5\)](#)

**Note:** All recommendations are category 2A unless otherwise indicated.  
**Clinical Trials:** NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.



# NCCN Guidelines Version 2.2024

## Distress Management

### ANXIETY DISORDERS

Signs and symptoms of the following disorders:

- Anxiety due to general medical condition
- Generalized anxiety disorder
- Panic disorder
- Specific phobia
- Agoraphobia
- Social anxiety disorder
- Substance/medication-induced anxiety disorder
- Conditioned nausea/vomiting ([NCCN Guidelines for Antiemesis](#))

### EVALUATION

- Evaluation, diagnostic studies, and modification of factors related to:
  - Cancer
  - Treatment
  - Nausea/vomiting
  - Medications
  - Medical causes
  - Withdrawal states
  - Pain
  - Poor concentration
  - Sleep disruption
  - Anxiety
  - Panic attacks
  - Hypervigilance
  - Fears
  - Irritability
- Assess safety
- Assess decision-making capacity
- Evaluate family and home environment
- Evaluate alcohol and recreational drug use
- Consider spiritual/religious concerns ([Chaplaincy Care, DIS-24](#))

### TREATMENT

Psychotherapy (category 1)  
± antidepressant  
± anxiolytic

Response

No/partial response

- Consider referral to psychiatry
- Reevaluate psychotherapy, support, education

Response

No/partial response

### FOLLOW-UP

Follow-up and communication with primary oncology team, primary care physician, and family/caregivers

Evaluate for depression and other psychiatric comorbidity

[Return to Psychological/Psychiatric Treatment Guidelines \(DIS-5\)](#)

**Note:** All recommendations are category 2A unless otherwise indicated.  
**Clinical Trials:** NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.



# NCCN Guidelines Version 2.2024

## Distress Management

### TRAUMA AND STRESSOR-RELATED DISORDERS: ADJUSTMENT DISORDER

### EVALUATION

### TREATMENT

### FOLLOW-UP

Signs and symptoms of the following disorders:  
• Adjustment disorder

- Evaluation, diagnostic studies, and modification of factors related to:
  - Cancer
  - Treatment
  - Medications
  - Medical causes
  - Pain
  - Poor concentration
  - Sleep disruption
  - Anxiety
- Assess safety
- Assess decision-making capacity
- Evaluate family and home environment

No danger to self or others

Psychotherapy (category 1)  
± antidepressant  
± anxiolytic

Response

No/partial response

- Consider referral to psychiatry
- Adjust medications/dosages
- Re-evaluate psychotherapy, support, education

Danger to self or others

- Evaluate suicide and homicide risk
- Consider directing patient to the emergency department for further psychiatric evaluation
- Assure patient safety:
  - Consider referral to psychiatry
  - Increase monitoring
  - Safety planning
  - Remove any guns and other dangerous objects
- Assure safety of others
- Consider referral to social work, counseling, or chaplaincy care. [See Social Work and Counseling Services \(DIS-22\)](#) or [Chaplaincy Care \(DIS-24\)](#)

Follow-up and communication with primary oncology team, primary care physician, and family/caregivers

Consider other psychological/psychiatric diagnoses ([DIS-5](#))

Follow-up for hospitalized patients and outpatients

Return to [Psychological/Psychiatric Treatment Guidelines \(DIS-5\)](#)

**Note:** All recommendations are category 2A unless otherwise indicated.  
**Clinical Trials:** NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.





# NCCN Guidelines Version 2.2024

## Distress Management

### TRAUMA AND STRESSOR-RELATED DISORDERS: POSTTRAUMATIC STRESS DISORDER AND ACUTE STRESS DISORDER

Signs and symptoms of the following disorders:

- Posttraumatic stress disorder
- Acute stress disorder

### EVALUATION

- Evaluation, diagnostic studies, and modification of factors related to:
  - Cancer
  - Treatment
  - Nausea/vomiting
  - Medications
  - Medical causes
  - Withdrawal states
  - Pain
  - Poor concentration
  - Sleep disruption
  - Anxiety
  - Panic attacks
  - Hypervigilance
  - Fears
  - Irritability
- Assess safety
- Assess decision-making capacity
- Evaluate family and home environment
- Evaluate alcohol and recreational drug use
- Consider spiritual/religious concerns

No danger to self or others

Danger to self or others

### TREATMENT

Psychotherapy (category 1)  
 ± antidepressant  
 ± anxiolytic

Response

No/partial response

- Evaluate suicide and homicide risk
- Consider directing patient to the emergency department for further psychiatric evaluation
- Assure patient safety:
  - Refer to psychiatry
  - Increase monitoring
  - Safety planning
  - Remove any guns and other dangerous objects
- Assure safety of others
- Consider referral to social work, counseling, or chaplaincy care. [See Social Work and Counseling Services \(DIS-22\)](#) or [Chaplaincy Care \(DIS-24\)](#)

- Consider referral to psychiatry
- Adjust medications/dosages
- Re-evaluate psychotherapy, support, education

### FOLLOW-UP

Follow-up and communication with primary oncology team, primary care physician, and family/caregivers

Consider other psychologic/psychiatric diagnoses ([DIS-5](#))

Follow-up for hospitalized patients and outpatients

Return to [Psychological/Psychiatric Treatment Guidelines \(DIS-5\)](#)

Note: All recommendations are category 2A unless otherwise indicated.  
 Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.



# NCCN Guidelines Version 2.2024

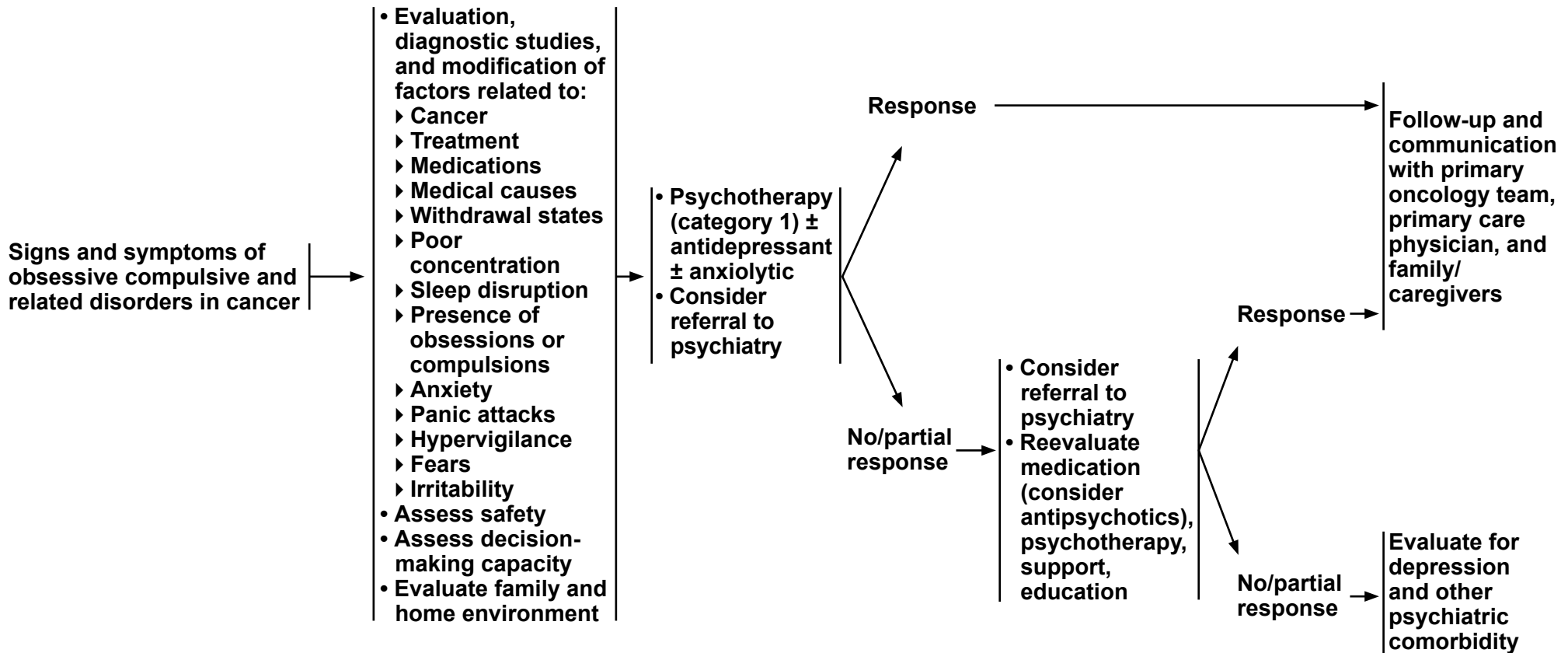
## Distress Management

### OBSESSIVE COMPULSIVE AND RELATED DISORDERS

### EVALUATION

### TREATMENT

### FOLLOW-UP



[Return to Psychological/Psychiatric Treatment Guidelines \(DIS-5\)](#)

**Note:** All recommendations are category 2A unless otherwise indicated.  
**Clinical Trials:** NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.



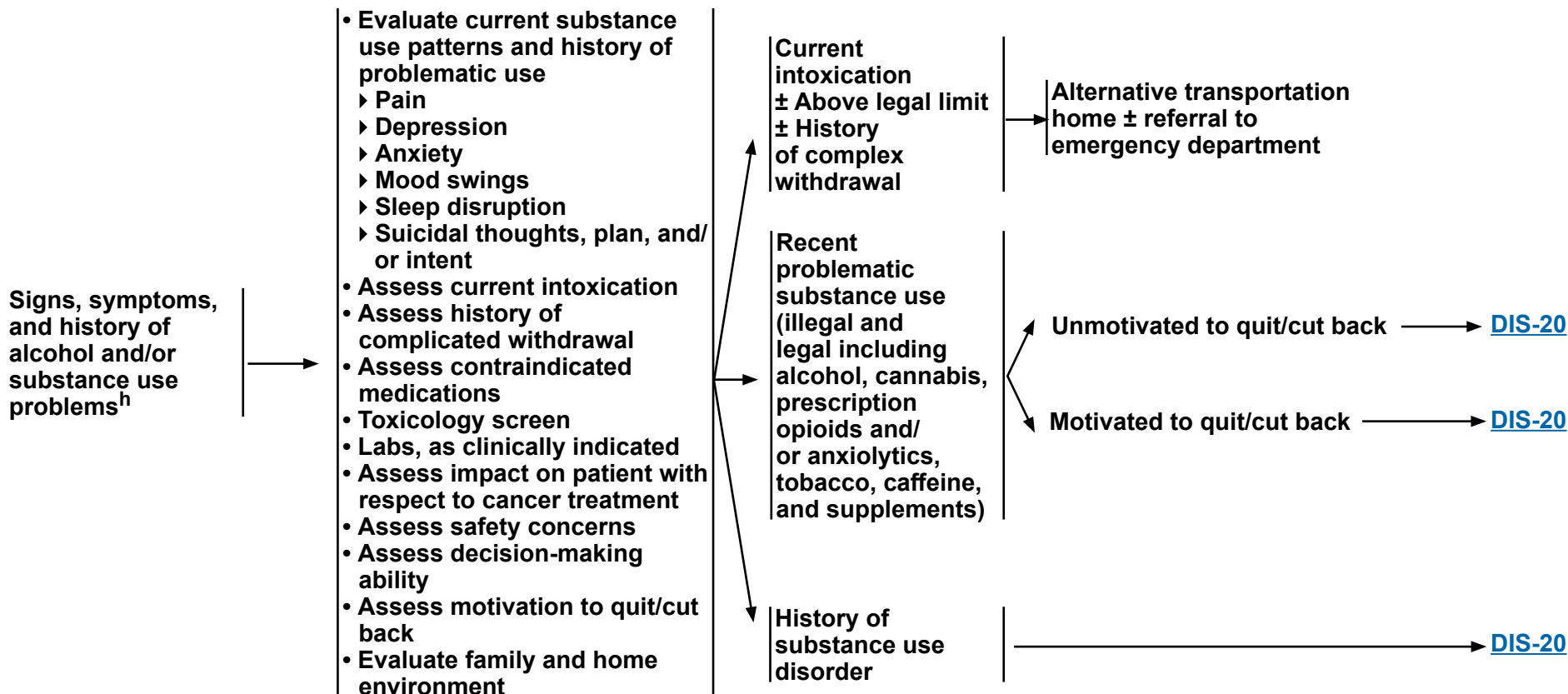
# NCCN Guidelines Version 2.2024

## Distress Management

### SUBSTANCE-RELATED AND ADDICTIVE DISORDERS

### EVALUATION

### TREATMENT



<sup>h</sup> Opioids, alcohol, tobacco, or other. For opioids, also see Opioid Principles, Prescribing, Titration, Maintenance, and Safety in the [NCCN Guidelines for Adult Cancer Pain \(PAIN-E\)](#). For tobacco use see the [NCCN Guidelines for Smoking Cessation](#).

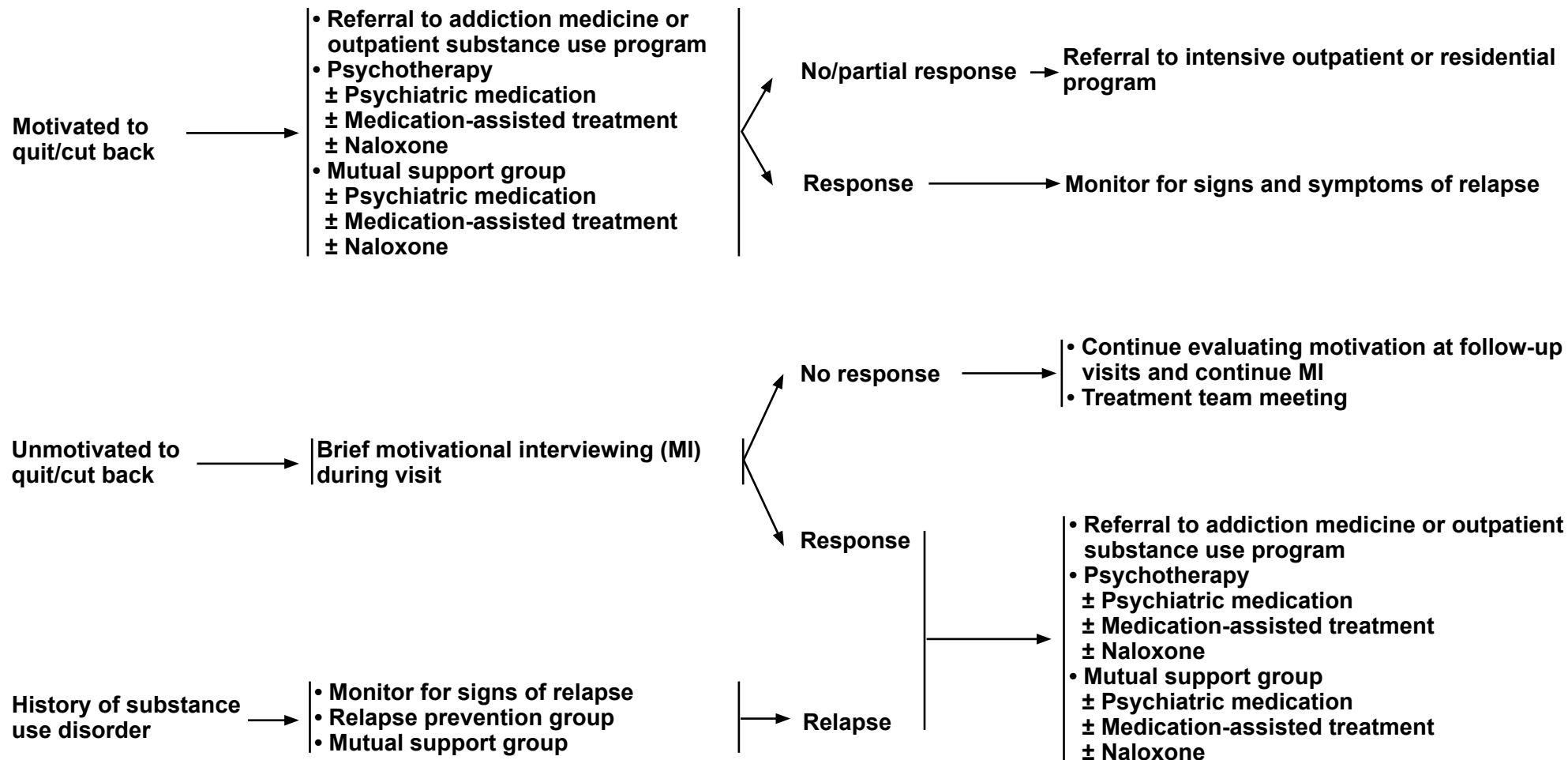
[Return to Psychological/ Psychiatric Treatment Guidelines \(DIS-5\)](#)

**Note: All recommendations are category 2A unless otherwise indicated.**  
**Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.**



### SUBSTANCE-RELATED AND ADDICTIVE DISORDERS (continued)

### FOLLOW-UP



[Return to Psychological/Psychiatric Treatment Guidelines \(DIS-5\)](#)

**Note:** All recommendations are category 2A unless otherwise indicated.  
**Clinical Trials:** NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.



# NCCN Guidelines Version 2.2024

## Distress Management

### PERSONALITY DISORDERS

Signs and symptoms of personality disorders<sup>i</sup> in cancer:

- Personality change related to medical or treatment factors
- Borderline
- Histrionic
- Schizoid
- Obsessive-compulsive
- Paranoid
- Antisocial
- Narcissistic
- Dependent
- Schizotypal

### EVALUATION

- Evaluation, diagnostic studies, and modification of factors related to:
  - Cancer
  - Treatment
  - Medications
  - Medical causes
  - Withdrawal syndromes
  - Pain
  - Manipulative behavior
  - Anger
  - Threatening behavior
  - Histrionic behavior
  - Demanding behavior
  - Fear
- Assess safety
- Assess decision-making capacity
- Assess home situation

### TREATMENT

- Develop coordinated behavioral, psychological, and medical treatment plan with health care team (behavioral management ± medications)
- Provide staff education for management
- Consider referral to psychiatry

Response →

No/partial response →

### FOLLOW-UP

Follow-up and communication with primary oncology team, primary care physician, and family/caregivers

Reevaluate for other psychiatric comorbidity or substance use disorder

<sup>i</sup> For a complete list of personality disorders, see the American Psychiatric Association (2013). Diagnostic and Statistical Manual of Mental Disorders (5th ed., Text Revision). Arlington, VA: American Psychiatric Press, Inc.

[Return to Psychological/Psychiatric Treatment Guidelines \(DIS-5\)](#)

**Note: All recommendations are category 2A unless otherwise indicated.**  
**Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.**



# NCCN Guidelines Version 2.2024

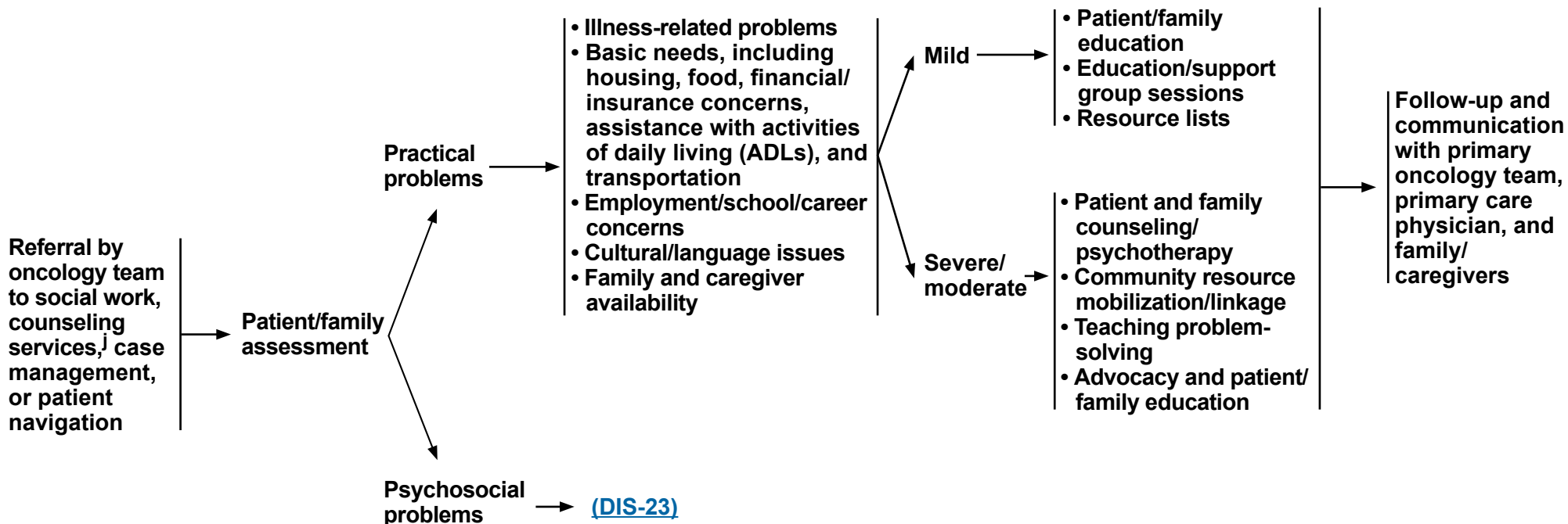
## Distress Management

### SOCIAL WORK AND COUNSELING SERVICES<sup>j</sup>

### CATEGORY

### TYPE OF PROBLEM

### SOCIAL WORK AND COUNSELING INTERVENTIONS<sup>i</sup>



<sup>j</sup> Social work and counseling services include mental health care as described in the psychological/psychiatric treatment guidelines ([DIS-5](#)).

**Note: All recommendations are category 2A unless otherwise indicated.**  
**Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.**



CATEGORY	TYPE OF PROBLEM	SOCIAL WORK AND COUNSELING INTERVENTIONS <sup>j</sup>
Psychosocial problems	<ul style="list-style-type: none"> <li>• Adjustment to illness</li> <li>• Family and social conflict/isolation</li> <li>• Treatment decisions, quality-of-life issues, and transitions in care</li> <li>• Absent or unclear advance directive</li> <li>• Abuse and neglect</li> <li>• Coping/communication</li> <li>• Changes regarding body image and sexual health</li> <li>• Grief, bereavement, and coping with loss</li> <li>• Cultural concerns</li> <li>• Caregiver issues (mobilizing support for caregivers)</li> <li>• Depressive symptoms</li> <li>• Suicidal ideation</li> <li>• Anxiety (ie, fears, nervousness, worry)</li> </ul>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; align-items: center; margin-bottom: 20px;"> <div style="text-align: center; margin-right: 10px;">Mild</div> <div style="font-size: 2em;">→</div> <div style="border: 1px solid black; padding: 5px; width: 80%;"> <ul style="list-style-type: none"> <li>• Patient/family education</li> <li>• Education/support group sessions</li> <li>• Resource lists</li> <li>• Sexual health counseling</li> <li>• Grief counseling</li> <li>• Strengthen coping strategies</li> </ul> </div> </div> <div style="display: flex; align-items: center; margin-bottom: 20px;"> <div style="text-align: center; margin-right: 10px;">Severe/ moderate</div> <div style="font-size: 2em;">→</div> <div style="border: 1px solid black; padding: 5px; width: 80%;"> <ul style="list-style-type: none"> <li>• Patient and family counseling/ psychotherapy, sexual health counseling, or grief counseling</li> <li>• Community resource mobilization</li> <li>• Problem-solving teaching</li> <li>• Advocacy and family/patient education</li> <li>• Education/support group sessions</li> <li>• Protective services</li> <li>• Consider referral to psychiatry</li> <li>• Consider referral for chaplaincy care</li> </ul> </div> </div> <div style="display: flex; align-items: center;"> <div style="font-size: 2em;">→</div> <div style="border: 1px solid black; padding: 5px; width: 80%;"> <p style="text-align: center;">Follow-up and communication with primary oncology team, primary care physician, and family/ caregivers</p> </div> </div> </div>

<sup>j</sup> Social work and counseling services include mental health care as described in the psychological/psychiatric treatment guidelines ([DIS-5](#)).

**Note:** All recommendations are category 2A unless otherwise indicated.  
**Clinical Trials:** NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.





### CHAPLAINCY CARE

#### CHAPLAINCY ASSESSMENT<sup>1,2</sup>

#### INTERVENTIONS BASED ON ASSESSMENT<sup>3</sup>

Referral by  
oncology team  
to chaplaincy  
care

- Interpersonal conflict regarding spiritual/religious beliefs and practices
- Concerns with lack of meaning/purpose
- Struggles with morality/values
- Doubts about beliefs
- Perception of being attacked by evil
- Dealing with issues of forgiveness
- Concerns about relationship with the sacred
- Concerns about dying/death and/or afterlife
- Grief/loss
- Feelings of worthlessness or being a burden
- Loneliness
- Conflict between religious beliefs and recommended treatment
- ▶ Ritual needs

- Spiritual/existential support/care
- Spiritual/existential counseling
- Spiritual/existential education (including resources)
- Spiritual/existential ritual
- Meditation and/or prayer
- Referral to spiritual/existential community resources (eg, specific faith community, spiritual director, pastoral psychotherapist)
- Referral to other health care professional (eg, palliative care, mental health professional)

Follow-up and  
communication  
with primary  
oncology team,  
primary care  
physician, and  
family/  
caregivers

<sup>1</sup> Exline JJ, Pargament KI, Grubbs JB, Yali AM. The Religious and Spiritual Struggles Scale: Development and initial validation. *Psychology of Religion and Spirituality* 2014;6:208-222.

<sup>2</sup> van Bruggen V, Ten Klooster P, Westerhof G, et al. The Existential Concerns Questionnaire (ECQ)-development and initial validation of a new existential anxiety scale in a nonclinical and clinical sample. *J Clin Psychol* 2017;73:1692-1703.

<sup>3</sup> Spiritual Health Victoria spiritual care standards: <https://spiritualhealth.org.au/standards>.

**Note: All recommendations are category 2A unless otherwise indicated.**

**Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.**

**PRINCIPLES FOR IMPLEMENTATION OF STANDARDS AND DISTRESS MANAGEMENT GUIDELINES<sup>4-11</sup>**

The Commission on Cancer's accreditation standards include screening all patients with cancer for psychosocial distress and referral for psychosocial care as needed.<sup>12</sup>

- **Recommend creation of a work group/cancer committee, which should be composed of multiple disciplines' representatives, including but not limited to physician champions, nurses, psychologists, information technology experts, administrative leadership, social workers, and chaplaincy.**
- **Explicit support and backing of the institutional leadership is essential. The committee should identify and organize advocates and institutional stakeholders who will support the implementation of the program. A small-scale pilot program may be a preferable way to test the screening process before a larger scale implementation is put in place.**
- **The following should be considered:**
  - ▶ **Already existing resources (eg, screening tools or programs already in place)**
  - ▶ **Current workflows, processes, and available technologies**
- **Various distress screening tools have been developed, including the NCCN Distress Thermometer and Problem List ([DIS-A](#)). The cancer committee should select the most appropriate screening tool to be administered in its setting.**
  - ▶ **Standardized, validated instruments, or tools with established clinical cutoffs, are recommended.**
  - ▶ **Determine the cutoff score or specific problems that will be used to identify distressed patients.**
  - ▶ **Determine the frequency of screening.**
  - ▶ **Develop a response algorithm (ie, who is alerted to screening results, how information is processed, and triggering of appropriate referrals).**
  - ▶ **Develop a process in which distress screening results are made known to critical members of the care team, including such strategies as incorporating the results into the patient's medical record.**
  - ▶ **Develop results thresholds for generating respective referrals. These may vary based on types of services available and their capacity.**
  - ▶ **Consider incorporating distress screening into the institutions' quality improvement and assessment process (eg, distress screening becomes a measurable quality metric).**
  - ▶ **Distress screening and response to results data should be tracked and can be used for further improvements, as well as expansion of needed services.**

<sup>4</sup> Ehlers SL, Davis K, Bluethmann SM, et al. Screening for psychosocial distress among patients with cancer: implications for clinical practice, healthcare policy, and dissemination to enhance cancer survivorship. *Transl Behav Med* 2019;9:282-291.

<sup>5</sup> Smith SK, Loscalzo M, Mayer C, Rosenstein DL. Best practices in oncology distress management: Beyond the screen. *Am Soc Clin Oncol Educ Book* 2018;38:813-821.

<sup>6</sup> Ercolano E, Hoffman E, Tan H, et al. Managing psychosocial distress: Lessons learned in optimizing screening program implementation. *Oncology (Williston Park)* 2018;32:488-490, 492-493.

<sup>7</sup> Rodin G. From evidence to implementation: The global challenge for psychosocial oncology. *Psychooncology* 2018;27:2310-2316.

<sup>8</sup> Knies AK, Jutagir DR, Ercolano E, et al. Barriers and facilitators to implementing the commission on cancer's distress screening program standard. *Palliat Support Care* 2019;17:253-261.

<sup>9</sup> Fitch MI, Ashbury F, Nicoll I. Reflections on the implementation of screening for distress (sixth vital sign) in Canada: key lessons learned. *Support Care Cancer* 2018;26:4011-4020.

<sup>10</sup> McCarter K, Britton B, Baker AL, et al. Interventions to improve screening and appropriate referral of patients with cancer for psychosocial distress: systematic review. *BMJ Open* 2018;8:e017959.

<sup>11</sup> Grassi L, Spiegel D, Riba M. Advancing psychosocial care in cancer patients. *F1000Res* 2017;6:2083.

<sup>12</sup> American College of Surgeons Commission on Cancer. *Cancer Program Standards: Ensuring Patient-Centered Care*; 2016. Available at: [https://www.facs.org/media/t5spw4jo/2016-coc-standards-manual\\_interactive-pdf.pdf](https://www.facs.org/media/t5spw4jo/2016-coc-standards-manual_interactive-pdf.pdf).

**Note: All recommendations are category 2A unless otherwise indicated.**

**Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.**

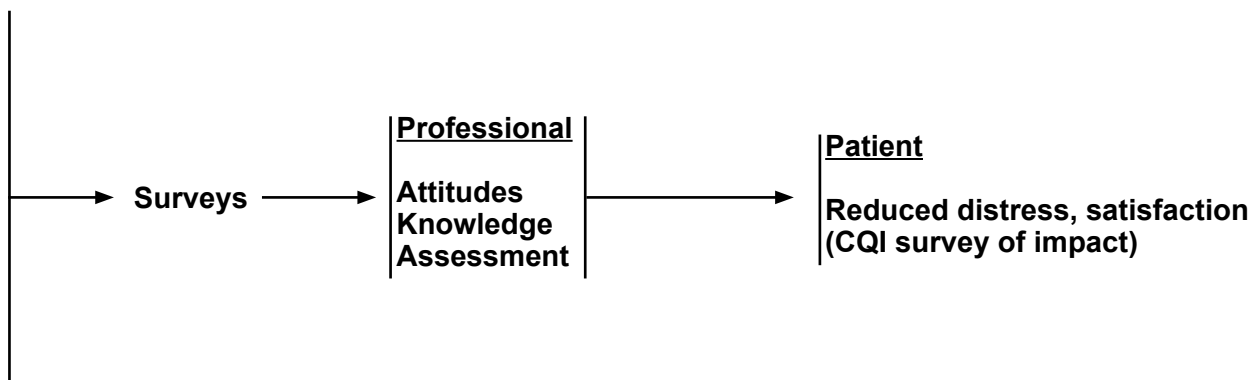


### INSTITUTIONAL EVALUATION OF STANDARDS OF CARE<sup>k</sup>

#### INTERVENTIONS

- Interdisciplinary committee tailors standards to institutional setting
- Distress Thermometer (0–10) and Problem List screening tool in clinics and inpatient setting ([DIS-A](#))
- Education of primary oncology teams via rounds and liaison with nurses and social workers
- Clarification of available resources
- CQI studies

#### OUTCOMES



<sup>k</sup> Based on implementation/evaluation of pain management guidelines.

**Note: All recommendations are category 2A unless otherwise indicated.**  
**Clinical Trials: NCCN believes that the best management of any patient with cancer is in a clinical trial. Participation in clinical trials is especially encouraged.**



---

### ABBREVIATIONS

<b>ADLs</b>	<b>activities of daily living</b>
<b>CQI</b>	<b>continuous quality improvement</b>
<b>MI</b>	<b>motivational interviewing</b>
<b>NCD</b>	<b>neurocognitive disorders</b>



### NCCN Categories of Evidence and Consensus

<b>Category 1</b>	Based upon high-level evidence, there is uniform NCCN consensus that the intervention is appropriate.
<b>Category 2A</b>	Based upon lower-level evidence, there is uniform NCCN consensus that the intervention is appropriate.
<b>Category 2B</b>	Based upon lower-level evidence, there is NCCN consensus that the intervention is appropriate.
<b>Category 3</b>	Based upon any level of evidence, there is major NCCN disagreement that the intervention is appropriate.

All recommendations are category 2A unless otherwise indicated.



# NCCN Guidelines Version 2.2024 Distress Management

## Discussion

This discussion corresponds to the NCCN Guidelines for Distress Management. Last updated: March 22, 2024.

## Table of Contents

- Overview.....MS-2**
- Literature Search Criteria and Guidelines Update Methodology.MS-2**
- Sensitive/Inclusive Language Usage.....MS-2**
- Psychosocial Problems in Adult Patients with Cancer.....MS-3**
  - Barriers to Distress Management in Cancer.....MS-4
- NCCN Guidelines for Distress Management.....MS-4**
- The New Standard of Care for Distress Management in Cancer.MS-5**
- Recommendations for Implementation of Standards and Guidelines  
.....MS-6**
- Screening Tools for Distress and Meeting Psychosocial Needs.MS-8**
  - The Distress Thermometer .....MS-8
  - The Problem List .....MS-8
- Initial Screening by Oncology Team.....MS-11**
- Psychological/Psychiatric Treatment by Mental Health  
Professionals .....MS-12**
  - Psychosocial Interventions .....MS-12
  - Pharmacologic Interventions.....MS-14
  - Exercise .....MS-15
  - Complementary and/or Integrative Therapies .....MS-15

- Psychological/Psychiatric Treatment Guidelines.....MS-16**
  - Neurocognitive Disorders .....MS-17
  - Depressive and Bipolar-Related Disorders.....MS-18
  - Schizophrenia Spectrum and Other Psychotic Disorders.....MS-19
  - Anxiety Disorders and Obsessive Compulsive and Related Disorders  
.....MS-19
  - Trauma- and Stressor-Related Disorders .....MS-20
  - Substance-Related and Addictive Disorders.....MS-21
  - Personality Disorders .....MS-22
- Social Work and Counseling Services.....MS-22**
- Spiritual and Chaplaincy Care.....MS-23**
- Oncologist Burnout .....MS-24**
- Summary .....MS-24**
- References .....MS-25**



# NCCN Guidelines Version 2.2024

## Distress Management

### Overview

In the United States, it is estimated that there are more than 18 million individuals with a history of cancer,<sup>1</sup> with a total of 2,001,140 new cancer cases estimated to occur in 2024.<sup>2</sup> All patients experience some level of distress associated with their cancer diagnosis and the effects of the disease and its treatment regardless of the stage of disease. Distress can result from the reaction to the cancer diagnosis and to the various transitions throughout the trajectory of the disease, including during survivorship. Clinically significant levels of distress occur in a subset of patients, and identification and treatment of distress are of utmost importance.

These NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Distress Management discuss the identification and treatment of psychosocial problems in patients with cancer. They are intended to assist oncology teams to identify patients who require referral to psychosocial resources and to give oncology teams guidance on interventions for patients with mild distress. These Guidelines also provide guidance for social workers, certified chaplains, and mental health professionals by describing treatments and interventions for various psychosocial problems as they relate to patients with cancer.

### Literature Search Criteria and Guidelines Update Methodology

Prior to the update of this version of the NCCN Guidelines® for Distress Management, an electronic search of the PubMed database was performed to obtain key literature, using the following search terms: (cancer distress) or (cancer depression) or (cancer anxiety) or (cancer dementia) or (cancer delirium) or (cancer depressive) or (cancer bipolar) or (cancer post-traumatic stress) or (cancer acute stress) or (cancer adjustment disorder) or (cancer obsessive-compulsive disorder) or (cancer panic disorder) or (cancer schizophrenia) or (cancer psychotic disorder) or

(cancer substance abuse) or (cancer substance dependence) or (cancer substance addiction) or (cancer personality disorder) or (cancer social work) or (cancer spiritual) or (cancer chaplain). The PubMed database was chosen because it remains the most widely used resource for medical literature, and indexes peer-reviewed biomedical literature.

The search results were narrowed by selecting studies in humans published in English. Results were confined to the following article types: Clinical Trial, Phase II; Clinical Trial, Phase III; Clinical Trial, Phase IV; Guideline; Randomized Controlled Trial; Meta-Analysis; Systematic Reviews; and Validation Studies. The data from key PubMed articles as well as articles from additional sources deemed as relevant to these guidelines as discussed by the panel during the Guidelines update have been included in this version of the Discussion section. Recommendations for which high-level evidence is lacking are based on the panel's review of lower-level evidence and expert opinion.

### Sensitive/Inclusive Language Usage

NCCN Guidelines strive to use language that advances the goals of equity, inclusion, and representation. NCCN Guidelines endeavor to use language that is person-first; not stigmatizing; anti-racist, anti-classist, anti-misogynist, anti-ageist, anti-ableist, and anti-weight-biased; and inclusive of individuals of all sexual orientations and gender identities. NCCN Guidelines incorporate non-gendered language, instead focusing on organ-specific recommendations. This language is both more accurate and more inclusive and can help fully address the needs of individuals of all sexual orientations and gender identities. NCCN Guidelines will continue to use the terms *men*, *women*, *female*, and *male* when citing statistics, recommendations, or data from organizations or sources that do not use inclusive terms. Most studies do not report how sex and gender data are collected and use these terms interchangeably or inconsistently. If sources do not differentiate gender from sex assigned at birth or organs





present, the information is presumed to predominantly represent cisgender individuals. NCCN encourages researchers to collect more specific data in future studies and organizations to use more inclusive and accurate language in their future analyses.

### **Psychosocial Problems in Adult Patients with Cancer**

Dramatic advances in early detection and treatment options have increased the overall survival rates in patients of all ages with cancer. At the same time, these improved treatment options are also associated with substantial long-term side effects, such as fatigue, pain, anxiety, and depression, which interfere with patients' ability to perform daily activities. In addition, the physiologic effects of cancer itself and certain anti-cancer drugs can also be non-psychological contributors to distress symptoms.<sup>3-5</sup> Furthermore, patients with cancer may have pre-existing psychological or psychiatric conditions that affect their ability to cope with cancer. Survivors of cancer are approximately twice as likely to report medication use for anxiety and depression as adults who do not have a personal history of cancer.<sup>6</sup>

Overall, surveys have found that 20% to 62% of patients show a significant level of distress.<sup>7-10</sup> The prevalence of psychological distress in individuals varies by the type and stage of cancer as well as by patient age, gender, and race.<sup>11</sup> Further, the prevalence of distress, depression, and psychiatric disorders has been studied in many stages and sites of cancer.<sup>12-16</sup> Cancers of the head and neck may be particularly distressing since treatment may be disfiguring and associated with impacts on essential functions such as eating, swallowing, breathing, and speaking.<sup>17</sup> Depression is also common in pancreatic cancer, a disease often associated with a poor prognosis.<sup>18</sup>

The panel identified characteristics associated with psychosocial distress. Patients at increased risk for moderate or severe distress are those with a

history of psychiatric disorder, current depression, or substance use disorder and those with cognitive impairment, severe comorbid illnesses, uncontrolled symptoms, communication barriers, prior trauma and/or abuse (physical, sexual, emotional, and/or verbal), or social issues. Social issues/risk factors include adolescence or young adulthood, recent immigration, social isolation and living alone, loss of housing or living environment, discrimination, and having young children. Patients may also experience distress about fertility and sexual health, such as loss of sexual desire and difficulty with orgasm and/or maintaining an erection.<sup>19-21</sup> Learning about genetic/familial risk of cancer is also associated with distress.<sup>22,23</sup>

Distress is a risk factor for non-adherence to cancer treatment.<sup>24,25</sup> In addition to decreased adherence to treatment, failure to recognize and treat distress may lead to several problems: patients may have trouble making decisions about treatment and may make extra visits to the physician's office and emergency room, which takes more time and causes greater stress to the oncology team.<sup>26,27</sup> An analysis of 1036 patients with advanced cancer showed that distress is associated with longer hospital stays ( $P = .04$ ).<sup>28</sup> Distress in patients with cancer also leads to poorer quality of life and may even negatively affect survival.<sup>29-31</sup> Furthermore, survivors with untreated distress have poorer compliance with surveillance screenings and are less likely to exercise and quit smoking.<sup>32</sup>

Early evaluation and screening for distress leads to early and timely management of psychological distress, which in turn improves medical management.<sup>33</sup> A randomized study showed that routine screening for distress, with referral to psychosocial resources as needed, led to lower levels of distress at 3 months than did screening without personalized triage for referrals.<sup>34</sup> Those with the highest level of initial distress benefitted the most. Overall, early detection and treatment of distress lead



# NCCN Guidelines Version 2.2024

## Distress Management

to better adherence to treatment, better communication, fewer calls and visits to the oncologist's office, and avoidance of patients' anger and development of severe anxiety or depression.

### Barriers to Distress Management in Cancer

Many patients with cancer who are in need of psychosocial care are not able to get the help they need because of the under-recognition of patients' psychological needs by the primary oncology team and lack of knowledge of community resources.<sup>35</sup> The need is particularly acute in community oncologists' practices where there are often fewer psychosocial resources.

An additional barrier to patients receiving the psychosocial care they require is the stigma associated with psychological problems. For many centuries, patients were not told their diagnosis of cancer due to the stigma attached to the disease. Since the 1970s, this situation has changed and patients are well aware of their diagnosis and treatment options.<sup>36</sup> Many patients, however, may be reluctant to reveal emotional problems to the oncologist. The words "psychological," "psychiatric," and "emotional" may be as stigmatizing as the word "cancer." The word "distress" is less stigmatizing and more acceptable to patients and oncologists, but psychological issues remain stigmatized even in the context of coping with cancer. Consequently, patients often do not tell their physicians about their distress and physicians do not inquire about the psychological concerns of their patients. The recognition of patients' distress has become more difficult as cancer care has shifted to the ambulatory setting, where visits are often short and rushed. These barriers prevent distress from receiving the attention it deserves, despite the fact that distress management is a critical component of the total care of the person with cancer.

### NCCN Guidelines for Distress Management

A major milestone in the improvement of psychosocial care in oncology was made by NCCN when it established a panel to develop clinical practice guidelines, using the NCCN format. The panel began to meet in 1997 as an interdisciplinary group. The clinical disciplines involved were: oncology, nursing, social work and counseling, psychiatry, psychology, and clergy. A patient advocate was also on the panel. Traditionally, clergy have not been included on NCCN Guidelines panels, but NCCN recognized that many distressed patients prefer to speak with a certified chaplain.<sup>37</sup>

The first step was to understand why this area has been so difficult to develop. The panel members decided that words like "psychiatric" or "psychological" are stigmatizing; patients and oncologists were reluctant to label any symptoms or patients as such. The way around this barrier was developed by using a term that would feel "normal" and non-stigmatizing. This led to the first published guidelines in 1999 for the management of *distress* in patients with cancer. This accomplishment provided a benchmark, which has been used as a framework in the handbook for oncology clinicians published by the International Psycho-Oncology Society (IPOS) Press.<sup>38</sup>

The panel defines distress as a multifactorial, unpleasant experience of a psychological (ie, cognitive, behavioral, emotional), social, spiritual, and/or physical nature that may interfere with one's ability to cope effectively with cancer, its physical symptoms, and its treatment. Distress extends along a continuum, ranging from common, normal feelings of vulnerability, sadness, and fears to problems that can become disabling, such as depression, anxiety, panic, social isolation, and existential and spiritual crisis.



# NCCN Guidelines Version 2.2024

## Distress Management

Recommendations in the guidelines are based on evidence and consensus among panel members. In addition to the guidelines for oncologists, the panel established guidelines for social workers, certified chaplains, and mental health professionals (psychologists, psychiatrists, psychiatric social workers, and psychiatric nurses).

### The New Standard of Care for Distress Management in Cancer

Psychosocial care had not been considered as an aspect of quality cancer care until the publication of a 2007 National Academy of Medicine (NAM) (formerly the Institute of Medicine) report, *Cancer Care for the Whole Patient*,<sup>39</sup> which is based on the pioneering work of the NCCN Panel. Psychosocial care is part of the standard for quality cancer care and should be integrated into routine care.<sup>39-41</sup> The NAM report supported the work of the NCCN Guidelines for Distress Management by proposing a model for the effective delivery of psychosocial health services that could be implemented in any community oncology practice:

- Screening for distress and psychosocial needs;
- Making and implementing a treatment plan to address these needs;
- Referring to services as needed for psychosocial care; and
- Reevaluating, with plan adjustment as appropriate.

In August 2012, the Commission on Cancer (CoC) of the American College of Surgeons (ACS) released new accreditation standards for hospital cancer programs. Their patient-centered focus now includes screening of all patients with cancer for psychosocial distress. These standards are required for accreditation, were enacted in 2015, and were updated in 2020 (<https://www.facs.org/quality-programs/cancer-programs/commission-on-cancer/standards-and-resources/>). According to the most up-to-date accreditation standards, institutions are expected to document and monitor their distress screening process.

The standards of care for managing distress proposed by the NCCN Distress Management Panel are broad in nature and should be tailored to the particular needs of each institution and group of patients. The overriding goal of these standards is to ensure that no patient with distress goes unrecognized and untreated. The panel based these standards of care on quality improvement guidelines for the treatment of pain.<sup>42</sup> The standards of care developed by the NCCN Distress Management Panel are as follows:

- Distress should be recognized, monitored, documented, and treated promptly at all stages of disease and in all settings.
- Screening should identify the level and nature of the distress.
- Ideally, patients should be screened for distress at every medical visit as a hallmark of patient-centered care. At a minimum, patients should be screened to ascertain their level of distress at the initial visit, at appropriate intervals, and as clinically indicated, especially with changes in disease status (eg, remission, recurrence, or progression; treatment-related complications).
- Distress should be assessed and managed according to clinical practice guidelines.
- Interdisciplinary institutional committees should be formed to implement standards for distress management.
- Educational and training programs should be developed to ensure that health care professionals and certified chaplains have knowledge and skills in the assessment and management of distress.
- Licensed mental health professionals and certified chaplains experienced in the psychosocial aspects of cancer should be readily available as staff members or by referral.
- Medical care contracts should include adequate reimbursement for services provided by mental health professionals.



# NCCN Guidelines Version 2.2024

## Distress Management

- Clinical health outcomes measurements should include assessment of the psychosocial domain (eg, quality of life; patient and family satisfaction).
- Patients, families, and treatment teams should be informed that distress management is an integral part of total medical care and includes appropriate information about psychosocial services in the treatment center and in the community.
- Finally, the quality of distress management programs/services should be included in institutional continuous quality improvement (CQI) projects.

Patients and families should be made aware of this standard and that it should be expected at their oncologist's practice. The website for the Alliance for Quality Psychosocial Cancer Care, a coalition of professional and advocacy organizations whose goal is to advance the recommendations from the NAM report, has hundreds of psychosocial resources for health care professionals, patients, and caregivers, and is searchable by state (<https://www.cancersupportcommunity.org/alliance-quality-psychosocial-cancer-care>).

### Recommendations for Implementation of Standards and Guidelines

A 2013–2014 survey of applicants for a distress screening cancer education program, spanning 70 institutions, showed that fewer than half of these institutions had not yet begun implementation of a distress screening program.<sup>43</sup> A 2014 survey of 55 cancer centers in the United States and Canada showed that adherence to an institution's distress screening protocol (ie, screening with appropriate documentation) occurred 63% of the time.<sup>33</sup> Another 2014 survey of 2134 members of the Association of Oncology Social Work (AOSW) who were also employees of a CoC-accredited cancer program showed that most programs now have procedures in place to address psychosocial care and are successful

in identifying patients' psychosocial needs and appropriately addressing them.<sup>44</sup> However, programs tend to be less successful with follow-up of psychosocial care and training of providers regarding psychosocial care. A 2012 survey completed by 20 NCCN Member Institutions showed that most institutions do not formally keep track of the number of patients who use psychosocial care and/or services, which limits the ability to ensure that centers are adequately implementing standards of psychosocial care.<sup>45</sup>

The MD Anderson Cancer Center published a 2010 report on its efforts to implement the integration of psychosocial care into clinical cancer care.<sup>46</sup> The authors outline strategies they used to accomplish the required cultural shift and describe the results of their efforts. Other groups have also described their efforts toward implementing psychosocial screening in various outpatient settings.<sup>47-55</sup> Surveys and interviews with clinical staff have identified barriers to adoption of distress screening and have found that time, staff uncertainties, competing demands, absence of clear systematic procedures, inadequate training, and ambiguous accountability are some of the biggest barriers.<sup>56-59</sup> A survey of oncology nurses also found that nurses who were familiar with these NCCN Guidelines for Distress Management were more comfortable discussing distress.<sup>56</sup>

Institutions should have a framework in place to deliver psychosocial care, to effectively manage distress in patients who would benefit from psychosocial services.<sup>60</sup> Some initiatives have been developed to assist institutions with implementation of standards for distress screening and psychosocial care. Quality indicators can be used to determine the quality of psychosocial care given by a clinic or office. The Quality Oncology Practice Initiative (QOPI) was started in 2002 by the American Society of Clinical Oncology (ASCO) as a pilot project (<http://practice.asco.org/quality-improvement/quality-programs/quality-oncology-practice-initiative>)<sup>61</sup> and became available to all ASCO member





medical oncologists in 2006. A 2008 manuscript showed that practices participating in QOPI demonstrated improved performance, with initially low-performing practices showing the greatest improvement.<sup>62</sup> Blayney and colleagues from the University of Michigan Rogel Cancer Center reported that QOPI can be adapted for use in practice improvement at an academic medical center.<sup>63</sup>

Additional guidance for the implementation and dissemination of the new NAM standards has been published.<sup>54,60,64-71</sup> In Canada, routine psychosocial care is part of the standard of care for patients with cancer; emotional distress is considered the sixth vital sign that is checked routinely along with pulse, respiration, blood pressure, temperature, and pain.<sup>26</sup> A national approach has been used to implement screening for distress in Canada. Its strategies have been described in the extant literature.<sup>72,73</sup> Groups in Italy, France, the Netherlands, and Japan have also described results of their preliminary efforts toward the implementation of psychosocial distress screening.<sup>74-77</sup>

The panel has identified some principles of implementation to guide institutions in development of a distress screening protocol and process for appropriate referral and follow-up. These principles include the following:

- Creation of an interdisciplinary work group/committee, which ideally would include physicians, nurses, psychologists, information technology experts, social workers, chaplains, and administrative leadership
- Mandatory support from institutional leadership
- Development and execution of a pilot program prior to any large-scale implementation

- Consideration of the institution's already existing resources and current workflow/processes

Distress screening should be considered a measurable quality metric. Therefore, distress screening can be incorporated into institutions' quality improvement and assessment processes. Some results have caused doubt for some regarding the efficacy of distress screening for improving patient outcomes. For instance, a systematic review found no evidence that screening improved distress levels over usual care in patients with cancer.<sup>78</sup> Criticisms of this review include the inappropriately narrow inclusion criteria and the focus on only distress as an outcome.<sup>79</sup> A second systematic review published in 2019, published in the Cochrane Database of Systematic Reviews, also found no evidence supporting the benefits of distress screening.<sup>80</sup> However, the study investigators caution that the quality of evidence is low, with more uniformity needed in outcomes and reporting. A third systematic review found that trials reporting a lack of benefit of distress screening in patients with cancer lacked appropriate follow-up care of distressed patients, while trials that linked screening with mandatory referral or intervention showed improvements in patient outcomes.<sup>81</sup>

Results of these three studies show that screening, while a critical component of psychosocial care, is not sufficient to impact patient outcomes without adequate follow-up referrals and treatment. A randomized controlled trial (RCT) examining the effects of screening on 568 patients with cancer receiving radiotherapy showed that screening alone does not significantly affect distress and quality of life, but earlier referral to mental health professionals was associated with better outcomes (ie, greater health-related quality of life, less anxiety).<sup>82</sup> For implementation of a distress screening protocol, an ideal frequency of screening should be identified, and institutions should develop a process for generating referrals and alerting the appropriate staff based on



screening results. Whether or not screening is occurring, how often, and whether or not appropriate referrals are generated, should be tracked. This information can be used by institutions to implement improvements in the process and potentially expand needed services.

### **Screening Tools for Distress and Meeting Psychosocial Needs**

Identification of a patient's psychological needs is essential for development of a plan to manage those needs.<sup>41</sup> In routine clinical practice, time constraints and the stigma related to psychiatric and psychological needs often inhibit discussion of these needs. It is critical to have a fast and simple screening method that can be used to identify patients who require psychosocial care and/or referral to psychosocial resources. The NCCN Distress Management Panel developed such a rapid screening tool, as discussed below.

Screening tools have been found to be effective and feasible in reliably identifying distress and the psychosocial needs of patients.<sup>83-85</sup> Completion of a psychosocial screening instrument may lead to earlier referral to social work services.<sup>86</sup> Mitchell and colleagues reported that ultra-short screening methods (Patient Health Questionnaire-2 [PHQ-2] or the NCCN Distress Thermometer [DT]) were acceptable to approximately three quarters of clinicians.<sup>87,88</sup> Automated touch screen technologies, telephone screening, interactive voice response, and web-based assessments have also been used for psychosocial and symptom screening of patients with cancer.<sup>89-93</sup>

#### **The Distress Thermometer**

The NCCN Distress Management Panel developed the DT, a now well-known tool for initial screening of 0 (no distress) to 10 (extreme distress), which is similar to the successful rating scale used to measure pain. The DT serves as an initial, single-item question screen, which identifies

distress coming from any source, even if unrelated to cancer. The DT can be administered in a variety of settings, such as through a patient portal or given by a receptionist or medical assistant. If the patient's distress level is mild (score is <4 on the DT), the primary oncology team may manage the concerns with usual clinical supportive care. If the patient's distress level is 4 or higher, a member of the oncology team will use the Problem List to identify key issues of concern and ask further questions to determine the best resources (psychiatry, psychology, social work, or chaplaincy professionals) to address the patient's concerns.

The DT has been validated by many studies in patients with different types of cancer, in different settings, and in different languages, cultures, and countries. The DT has shown good sensitivity and specificity. A meta-analysis of 42 studies with greater than 14,000 patients with cancer found the pooled sensitivity of the DT to be 81% (95% CI, 0.79–0.82) and the pooled specificity to be 72% (95% CI, 0.71–0.72) at a cut-off score of 4.<sup>94</sup> While the DT is not a screening tool for psychiatric disorders, it has demonstrated concordance with the Hospital Anxiety and Depression Scale (HADS)<sup>95-104</sup> and the Depression Anxiety and Stress Scale-21.<sup>105</sup>

The NCCN DT and Problem List are freely available for non-commercial use (available at [www.NCCN.org](http://www.NCCN.org)). In addition, the NCCN website includes a patient-friendly description of distress with a copy of the tool (<https://www.nccn.org/patientresources/patient-resources>). NCCN also has verified translations of the DT and Problem List in various languages that are freely available online (<https://www.nccn.org/global/what-we-do/distress-thermometer-tool-translations>).

#### **The Problem List**

The DT includes a 42-item Problem List, which is on the same page as the DT. The Problem List asks patients to identify their concerns in five categories: physical, emotional, social, practical, and spiritual/religious.



# NCCN Guidelines Version 2.2024

## Distress Management

The NCCN Distress Management Panel notes that the Problem List may be modified to fit the needs of the local population. Some investigators have adapted the Problem List for specific groups of patients (eg, patients with lung cancer, patients with central nervous system [CNS] tumors).<sup>106,107</sup>

An analysis of the DT and Problem List including principal component analysis, logistic regression, and classification and regression tree analyses showed that endorsement of Problem List items associated with emotion (ie, sadness, worry, depression, fears, nervousness, sleep), physical function (ie, transportation, bathing/dressing, breathing, fatigue, getting around, memory/concentration, pain), and support (ie, spiritual/religious concerns, insurance/finances, dealing with partner) were significantly associated with moderate or severe distress ( $P < .001$ ,  $P = .003$ , and  $P = .013$ , respectively).<sup>108</sup> Two studies validated a version of the DT with an expanded problems list.<sup>106,109</sup> Tuinman and colleagues validated the DT with the 46-item Problem List in a cross-sectional group of 227 patients with cancer.<sup>109</sup>

For the 2022 Guidelines update, the panel modified the Problem List to better reflect patients' most current concerns.<sup>110</sup> Specific revisions include reorganization, consolidation, and deletion of some physical concerns (eg, "bathing/dressing" and "getting around" deleted; added "loss or change of physical abilities"). Specific emotional and social concerns were added and revised (eg, combined "sadness" and "depression" into one item; added "relationship with friends or coworkers" and "communication with health care team"). Finally, specific spiritual or religious concerns were added (eg, "sense of meaning or purpose", "conflict between beliefs and cancer treatments"). The complete and up-to-date NCCN DT and Problem List are available at [www.NCCN.org](http://www.NCCN.org).

### **Cognitive Impairment**

"Memory or concentration" is one item on the Problem List. Cognitive impairment is common in patients with primary CNS cancers, due to the effects of brain tumors and the effects of treatment targeted to the brain.<sup>111,112</sup> Evidence has shown that chemotherapy-related cognitive dysfunction is also prevalent in patients with non-CNS cancers and without brain metastases.<sup>113-117</sup> Chemotherapy can cause subtle cognitive changes, which have been studied primarily in patients with breast cancer or lymphoma. These changes can continue over years and at times, when more severe, can impact quality of life and function. One study, however, showed that patients with breast cancer who received systemic adjuvant therapy did not report significantly greater cognitive impairment 7 to 9 years after treatment, compared to patients with breast cancer who did not receive systemic adjuvant therapy ( $N = 1889$ ), when statistically controlling for menopausal status and sociodemographic and clinical covariates.<sup>118</sup> The underlying mechanisms for chemotherapy-induced cognitive changes are not known. Studies have reported elevated levels of cytokines or DNA damage as some of the possible mechanisms.<sup>119</sup> Furthermore, changes in brain activity have been observed in patients following chemotherapy, suggesting that direct damage to the brain may contribute to chemotherapy-induced cognitive decline.<sup>120</sup>

Evidence suggests that cancer and therapies other than chemotherapy, such as hormone therapy, can cause cognitive impairments in patients with cancer.<sup>121-123</sup> A meta-analysis including 14 studies with 417 patients with prostate cancer showed that androgen deprivation therapy negatively impacts performance of visuomotor tasks.<sup>124</sup> A national cross-sectional study found that a history of cancer is independently associated with a 40% increase in the likelihood of self-reported memory problems.<sup>125</sup> A case-control study ( $N = 226$ ) showed that patients with breast cancer may experience some cognitive impairment prior to beginning treatment, and this impairment may be due to post-traumatic stress symptoms.<sup>126,127</sup> A





better understanding of the mechanisms that cause cancer-related cognitive impairment is essential for the development of treatments to improve cognitive function and quality of life in patients with cancer.<sup>111,112</sup>

There is no standard treatment for the management of cognitive changes in patients with cancer, and intervention studies to date have been limited by methodologic flaws such as a small sample size, poor generalizability, and lack of a proper control group.<sup>115,128</sup> Cognitive behavioral therapy (CBT), cognitive rehabilitation programs, compensatory strategy training, and exercise may be effective interventions to improve cognitive function in patients with cancer.<sup>115,128-132</sup> In addition, some studies have shown that the use of psychostimulants such as methylphenidate and modafinil improved cognitive function in patients with cancer.<sup>133-138</sup> Donepezil, a reversible acetylcholinesterase inhibitor (approved to treat mild to moderate dementia in patients with Alzheimer's disease) also improved cognitive function, mood, and health-related quality of life in patients with primary low-grade glioma.<sup>139</sup> Further placebo-controlled trials are needed to confirm these preliminary findings.<sup>115,134</sup>

The NCCN Guidelines for Survivorship (available at [www.NCCN.org](http://www.NCCN.org)) contain more information on this topic, with recommendations for the management of cognitive dysfunction in survivors.

### **Fertility**

Another item on the Problem List is the “ability to have children.” Chemotherapy and radiation therapy have an impact on the fertility of patients, especially in those who are of childbearing age.<sup>140</sup> Therefore, the panel has included “ability to have children” as one of the items listed under the family problems category. The Oncofertility Consortium is a useful patient education resource for those who are concerned about the possible effect of cancer treatment on their fertility (<https://www.savemyfertility.org>). Additionally, the NCCN Guidelines for Adolescent and Young Adult (AYA) Oncology (available at

[www.NCCN.org](http://www.NCCN.org)) have information on fertility and reproductive considerations.

### **Financial Worries**

Insurance and finances are included as practical concerns in the Problem List. The impact of “financial toxicity” on cancer care is an important issue that impacts patients.<sup>141-144</sup> The cost of cancer care and diagnostic workup, as well as reduction in productivity or income due to limited ability to work, contribute to patients' concerns about financial hardship.<sup>141,143,145</sup> Financial worries in cancer survivors may be more common in patients who are younger, uninsured, have a lower income, have less education, were diagnosed with late-stage or recurrent disease, or are undergoing active treatment or were treated recently.<sup>144-147</sup> It is important for the primary oncology team to be aware of potential financial worries facing patients undergoing distress screening.

### **Prejudice and Discrimination**

Prejudice and discrimination (eg, racism, sexism, ageism, classism, homophobia, ableism, mental illness stigma) can impact cancer care and lead to health disparities. Racial disparities have been demonstrated for guideline-concordant cancer care.<sup>148,149</sup> Healthcare system factors that may lead to health disparities include differences in access to care and clinical trials and physician-patient communication, physician biases, lack of insurance or underinsurance, and other social determinants of health.<sup>150,151</sup> Experiencing discrimination both in general life and in cancer care is associated with greater distress.<sup>152,153</sup> Because experiences of prejudice and discrimination may contribute significantly to distress, particularly among individuals with mental illness and other groups that have been marginalized or made vulnerable, health care systems should ensure a culture of diversity, equity, and inclusiveness in the management of cancer-related distress.



## Initial Screening by Oncology Team

The panel recommends that all patients be screened prior to clinical visits using a simple tool. While there are several types of screening tools, the DT and the accompanying Problem List are recommended to assess the level of distress and to identify causes of distress. If the patient's distress is moderate or severe (DT score  $\geq 4$ ), the oncology team must recognize that score as a trigger to a second level of questions, including clinical interviews and/or validated scales/screeners for anxiety and depression. A positive screen should prompt referral to a mental health professional, social worker, or spiritual counselor, depending on the problems identified in the Problem List. Common symptoms that require further evaluation are: excessive worries and fears, excessive sadness, unclear thinking, despair and hopelessness, severe family problems, social problems, and spiritual or religious concerns. Any unrelieved physical symptoms should be treated based on NCCN's disease-specific guidelines, and referral for palliative care management may also be considered (see the NCCN Guidelines for Palliative Care, available at [www.NCCN.org](http://www.NCCN.org)).

Mild distress (DT score  $< 4$ ) is routinely managed by the primary oncology team and represents what the panel terms "expected distress" symptoms. The symptoms that the team manages are fear and worry about the future; concerns about the illness; sadness about loss of good health; anger and the feeling that life is out of control; poor sleep, poor appetite, and poor concentration; preoccupation with thoughts of illness, death, treatment, and side effects; concerns about social roles (eg, parent); and spiritual or existential concerns. Many patients experience these symptoms at the time of diagnosis and during arduous treatment cycles. They might persist long after the completion of treatment. For instance, minor physical symptoms are often misinterpreted by survivors as a sign of recurrence, which causes fear and anxiety until they are reassured.

The primary oncology team is the first to deal with these distressing problems. The oncologist, nurse, and social worker each have a critical role. First and foremost, a critical component is the quality of the physician's communication with the patient, which should occur in the context of a mutually respectful relationship so that the patient can learn the diagnosis and understand the treatment options and side effects. Adequate time should be provided for the patient to ask questions and for the physician to put the patient at ease. When communication is done well at diagnosis, the stage is set for future positive trusting encounters. It is important to ensure that the patient understands what has been said. Information may be reinforced with drawings or by recording the session and giving the recording to the patient. Communication skills training programs, for example, that teach oncology professionals how to discuss prognosis and unanticipated adverse events and how to reach a shared treatment decision, may be very helpful. In fact, in an RCT, it was found that patients of oncologists who had communication skills training were less depressed at follow-up than patients of oncologists from the control group ( $P = .027$ ).<sup>154</sup> For a comprehensive review of communication skills training, see Kissane et al.<sup>155</sup>

It is important for the oncology team to acknowledge and validate that cancer presents a unique challenge and that distress is normal and expected. Being able to express distress to the staff helps provide relief to the patient and builds trust. The team needs to ensure that social supports are in place for the patient and that the patient knows about community resources such as support groups, teleconferences, and help lines. Some selected organizations that provide free information services to patients with cancer are:

- American Cancer Society: [www.cancer.org](http://www.cancer.org)
- American Institute for Cancer Research: [www.aicr.org](http://www.aicr.org)
- American Psychosocial Oncology Society: <http://apos-society.org/>



# NCCN Guidelines Version 2.2024

## Distress Management

- Cancer Support Community: <http://www.cancersupportcommunity.org> (Cancer Support Community provides the Cancer Support Helpline at 888.793.9355)
- CancerCare: [www.cancer.org](http://www.cancer.org)
- National Cancer Institute: [www.cancer.gov](http://www.cancer.gov)
- Cancer.net, sponsored by ASCO: [www.cancer.net](http://www.cancer.net)

Follow-up at regular intervals or at transition points in illness is an essential part of the NCCN Guidelines for Distress Management and the NAM model for care of the whole patient.

### Psychological/Psychiatric Treatment by Mental Health Professionals

#### Psychosocial Interventions

Psychosocial interventions have been effective in reducing distress and improving overall quality of life among patients with cancer.<sup>39,40</sup> The 2007 NAM report noted that a strong evidence base supports the value of psychosocial interventions in cancer care.<sup>39</sup> The review examined the range of interventions (psychological, social, and pharmacologic) and their impact on any aspect of quality of life, symptoms, or survival. The extensive review found randomized clinical trials, systematic reviews, and meta-analyses supporting the conclusion that psychosocial aspects must be integrated into routine cancer care to give quality cancer care. Other meta-analyses have come to similar conclusions, although more research is clearly needed.<sup>156-158</sup> To date, psychosocial interventions for patients with cancer have disproportionately targeted women with breast cancer.<sup>156,157</sup> More interventions targeting patients with other cancer types, or inclusion of mixed types, should be developed and evaluated. A meta-analysis including 53 studies of psychosocial interventions for patients with cancer ( $N = 12,323$ ) showed that patients were more willing to participate in interventions delivered over the telephone versus in person ( $P = .031$ )

and when intervention is offered shortly after diagnosis versus later ( $P = .018$ ).<sup>159</sup> CBT, supportive psychotherapy, and family and couples therapy are three key types of psychotherapies discussed in the NAM report.<sup>39</sup>

#### Cognitive Behavioral Therapy

CBT involves practicing relaxation techniques, enhancing problem-solving skills, and identifying and correcting inaccurate thoughts associated with feelings. In randomized clinical trials, CBT and cognitive-behavioral stress management have been shown to effectively reduce psychological symptoms (anxiety and depression) as well as physical symptoms (pain and fatigue) in patients with cancer.<sup>160-165</sup> A Cochrane systematic review including 28 RCTs ( $N = 3940$ ) showed that CBT interventions favorably address anxiety, depression, and mood disturbance in patients with non-metastatic breast cancer.<sup>166</sup> The quality of the evidence was low for anxiety and depression and moderate for mood disturbance, however, indicating the need for studies to use higher quality intervention methods and validated instruments for measuring outcomes. Two RCTs have demonstrated improvements in distress following web-based CBT interventions.<sup>167,168</sup>

Therapy techniques rooted in CBT may be effective in reducing depression and anxiety. Behavioral activation, which is focused on decreasing avoidance and increasing engagement in activities, is associated with improvements in depression.<sup>169</sup> Some small studies have shown that behavioral activation therapy may improve depression and anxiety in patients with cancer, but larger studies are needed.<sup>170,171</sup> Finally, results from small randomized trials including patients with breast cancer show that problem-solving therapy, which helps individuals focus on healthy coping methods and developing action plans to address obstacles, may improve depression in these patients.<sup>171,172</sup> Another small RCT showed that problem-solving therapy reduced anxiety and distress in patients receiving hematopoietic stem cell transplant (HSCT).<sup>173</sup>



# NCCN Guidelines Version 2.2024

## Distress Management

### **Supportive Psychotherapy**

Supportive psychotherapy, aimed at flexibly meeting patients' changing needs, is widely used. Different types of group psychotherapy have been evaluated in clinical trials among patients with cancer. Meaning-centered group psychotherapy, designed to help patients with advanced cancer sustain or enhance a sense of meaning, peace, and purpose in their lives (even as they approach the end of life), has also been shown to reduce psychological distress among patients with advanced cancer.<sup>174-176</sup> Dignity therapy, which has been designed for patients with a terminal diagnosis, has been evaluated in a small number of RCTs and quasi-experimental studies.<sup>177</sup> Effects on psychological well-being and quality of life are inconsistent, with additional research being needed in this area. A systematic review including six studies showed that expressive writing did not impact depression or anxiety in patients with advanced cancer.<sup>178</sup> However, the evidence was deemed low quality, and more research is needed regarding this therapeutic technique.

Interventions incorporating internet support groups have been evaluated, with a Cochrane review including six studies with 492 females with breast cancer showing a small to moderate effect on depression, based on low-quality evidence.<sup>179</sup> None of the six studies included in the review assessed emotional distress specifically, and results from two studies showed no significant effect on anxiety when comparing the intervention and control groups. Results of an RCT that included an internet support group with a prosocial component showed that this intervention did not reduce depression and anxiety in patients with nonmetastatic breast cancer ( $N = 184$ ).<sup>180</sup> One systematic review showed that internet peer support interventions that are unmoderated may even be detrimental.<sup>181</sup>

### **Psychoeducation**

Psychoeducational interventions are those that offer education to those with specific psychological disorders or physical conditions.

Psychoeducational interventions for patients with cancer may be general, such as providing information regarding stress management and healthy living (eg, nutrition, exercise),<sup>182,183</sup> while other interventions may be more specific to the cancer type. A meta-analysis examining 19 psychoeducational interventions with 3857 patients with cancer showed small post-treatment effects overall for emotional distress, anxiety, depression, and quality of life.<sup>156</sup> The only significant effects at long-term follow-up were for quality of life. Another meta-analysis including 11 studies of psychoeducational interventions for patients with gynecologic cancers showed effectiveness for depressive symptoms.<sup>184</sup> Motivational interviewing is a patient-centered approach in which a mental health professional offers empathy as the patient explores ambivalence regarding behavior change.<sup>185</sup> One meta-analysis showed that motivational interviewing may be effective for patients with cancer for behaviors such as fruit/vegetable consumption, physical activity, smoking cessation, stress management, and sleep.<sup>186</sup> Psychoeducation interventions that offer education regarding symptom management may also be effective when delivered via the internet.<sup>187,188</sup>

### **Family and Couples Therapy**

A cancer diagnosis causes distress in partners and family members as well as the patient. Psychosocial interventions aimed at patients and their families together might lessen distress more effectively than individual interventions. In a longitudinal study of couples coping with early-stage breast cancer, mutual constructive communication was associated with less distress and more relationship satisfaction for both the patients and partners compared to demand/withdraw communication or mutual avoidance, suggesting that training in constructive communication would be an effective intervention.<sup>189</sup>

Some systematic reviews have been carried out to assess the efficacy of therapy involving patients' close others. A meta-analysis including 23





RCTs showed that patient-caregiver interventions were associated with improvements in patient quality of life, marital functioning, depression, and anxiety.<sup>190</sup> A meta-analysis focusing specifically on couple-based interventions for patients with cancer and their spouses ( $N = 12$ ) showed that these interventions improved depression, anxiety, and marital satisfaction, compared to control groups.<sup>191</sup> A systematic review of 23 studies that assessed the efficacy of psychosocial interventions for couples affected by cancer found evidence that couples therapy might be at least as effective as individual therapy.<sup>192</sup> Another systematic review examining the effects of 10 interventions for couples coping with breast cancer showed that, although results are mixed, these interventions tend to yield at least some benefit.<sup>193</sup> A systematic review including nine studies evaluating interventions for caregiving partners of patients with cancer showed that these interventions improved caregivers' distress.<sup>194</sup> Topics covered in these partner interventions included social support, problem-solving, relationship quality, role expectations, resilience, and coping strategies. Finally, a systematic review including 11 studies evaluating interventions for family caregivers of patients with advanced cancer showed that these interventions improved caregivers' distress and caregiving burden and improved quality of life, self-efficacy, and caregiving competency.<sup>195</sup>

### Pharmacologic Interventions

Psychotropic medications help to manage depression and anxiety in the cancer setting. They have great benefits, as well as risks.

#### **Antidepressants**

Antidepressants help to manage both depression and anxiety in adult patients with cancer and are commonly used in these settings.<sup>196-200</sup> In RCTs, selective serotonin reuptake inhibitors (SSRIs) have efficacy in improving depressive symptoms in patients with cancer.<sup>201,202</sup> Of note, antidepressants usually must be taken daily, not intermittently, and require

4 to 6 weeks to take full effect. A discontinuation syndrome of malaise, dizziness, or lightening-like pains can occur when they these medications are stopped suddenly. While not dangerous, this syndrome can be minimized by decreasing the antidepressant dose slowly over the course of weeks to months, under the supervision of a clinician. Antidepressants can sometimes interact with commonly used oncologic and other types of medications. For instance, some antidepressants prolong the cardiac QT interval and can interact with anti-cancer agents that have this same effect.

#### **Benzodiazepines**

Acute anxiety can interfere with cancer treatment (eg, anticipatory nausea and vomiting with chemotherapy; claustrophobia with radiographic assessment; anxiety exacerbating pain or sleep disturbances; anxiety impeding medical decision-making or treatment adherence; existential anxiety). Benzodiazepines, which are fast-acting, are prescribed commonly in the cancer setting for patients with acute anxiety.<sup>203,204</sup> Despite their efficacy, benzodiazepines have notable risks including confusion, ataxia leading to falls and motor vehicle crashes, and addiction. Such sequelae are magnified in older adults and in patients who are frail. For these reasons, benzodiazepine use should not be undertaken lightly, and dose reduction should be considered to minimize memory difficulties, sedation, and tolerance. When used chronically, benzodiazepines should be withdrawn gradually over the course of weeks to months to avoid a withdrawal syndrome of insomnia, tremulousness, agitation, delirium, or seizures.

#### **Antipsychotics**

Antipsychotics are sometimes used in the cancer setting to manage fear, agitation, psychosis, sleep, steroid-related lability, and delirium. Risks of antipsychotics include movement disorders, restlessness, sedation, orthostatic hypotension, and asthenia. In dementia-related psychosis,



which may occur in older adult patients, antipsychotics increase the risk of death, which is noted in a black box warning. Some antipsychotics prolong the cardiac QT interval<sup>205</sup> and may promote metabolic disturbance by impacting lipid metabolism.<sup>206</sup>

### Exercise

Exercise during and after cancer treatment can improve cardiovascular fitness and strength and can have positive effects on balance, body composition, and quality of life.<sup>207-209</sup> A systematic review of 20 meta-analyses showed that there was a statistically significant effect of exercise on depression in cancer survivors in 63% of the meta-analyses.<sup>210</sup> However, most of the effect sizes were small, with low to moderate quality of evidence. Two meta-analyses<sup>211,212</sup> reported a greater pooled effect estimate for studies in which exercise took place after primary treatment was completed, compared to studies in which exercise was done during treatment. A Cochrane systematic review of patients with hematologic malignancies showed that aerobic exercise may reduce depression but not anxiety,<sup>213,214</sup> while a systematic review including 12 randomized trials showed that aerobic exercise improves symptoms of both depression and anxiety in breast cancer survivors.<sup>215</sup> A meta-analysis examining the effects of exercise during or after chemotherapy treatment (10 studies with 838 participants) also showed an impact on depression ( $P = .04$ ) but not anxiety ( $P > .05$ ).<sup>216</sup> The quality of the evidence in this area is low, as larger RCTs and longer follow-up periods are needed. Cancer-related fatigue, which may be exacerbated by distress, is also positively impacted by exercise (see the NCCN Guidelines for Cancer-Related Fatigue, available at [www.NCCN.org](http://www.NCCN.org)).<sup>217,218</sup>

### Complementary and/or Integrative Therapies

Regarding complementary and/or integrative therapies for patients with cancer, a systematic review showed that meditation, yoga, relaxation with imagery, massage, and music therapy may be helpful for patients with

depressive disorders who have breast cancer.<sup>219,220</sup> Music therapy, meditation, and yoga may also be used to reduce anxiety in patients with breast cancer.<sup>219,220</sup> A systematic review including 81 randomized and quasi-randomized trials with 5576 patients showed that music therapy benefits patients with anxiety and depression, although most of the trials included in the analysis were considered at high risk for bias.<sup>221</sup>

Two meta-analyses showed that yoga may reduce depression and anxiety symptoms.<sup>222,223</sup> However, the methodologic quality of the studies included in these reviews was generally low. A Cochrane review showed that, when compared to psychosocial or educational interventions, yoga may have at least short-term effects on depression (pooled standardized mean difference [SMD], -2.29; 95% CI, -3.97 to -0.61) and anxiety (pooled SMD, -2.21; 95% CI, -3.90 to -0.52).<sup>224</sup> A systematic review showed that yoga during treatment may improve distress, but this conclusion is based on only two RCTs.<sup>225</sup> The quality of evidence supporting yoga for symptoms of anxiety and depression is stronger for patients with breast cancer than for patients with other cancer types.<sup>226</sup> Large randomized studies are needed to investigate the potential impact of yoga on distress.

A systematic review including 29 randomized trials showed that mindfulness-based interventions reduced anxiety, depression, and stress in patients with cancer.<sup>227</sup> Another meta-analysis including 28 RCTs showed that these reductions in anxiety and depression persist up to 6 months after intervention.<sup>228</sup> Meta-analyses have examined the effects of mindfulness-based stress reduction (MBSR) specifically. Two meta-analyses show that MBSR reduces distress.<sup>229,230</sup> One of these analyses, which included 29 RCTs and 3274 patients showed that larger effects were found for studies that adhered to an intervention manual, included younger patients, used a passive control group, and used a shorter follow-up interval.<sup>230</sup> Two meta-analyses including RCTs with patients with breast



# NCCN Guidelines Version 2.2024

## Distress Management

cancer showed that MBSR may impact anxiety and depression in the short-term only.<sup>231,232</sup>

Based on the evidence described above, the panel recommends relaxation, mindfulness, meditation, and creative therapies such as art and music for patients experiencing distress. Limitations of research in this area include inability to mask participants from the treatment they receive, lack of standardization of interventions, poor diversity of study samples, and infrequent usage of active comparator groups.<sup>226</sup>

### Psychological/Psychiatric Treatment Guidelines

Patients scoring 4 or higher on the DT during any visit to the oncologist are referred to the appropriate supportive service (mental health, social work and counseling, or chaplaincy professionals) based on the identified problem. Mental health professionals are expected to conduct a psychological or psychiatric evaluation that includes an assessment of the following: the nature of the distress, changes in behavior, interpersonal problems, psychological/psychiatric history and symptoms, use of medications, substance use disorder, pain, fatigue, sleep/wake disturbances, other physical symptoms, cognitive impairment, body image, sexual health, and capacity for decision-making and physical safety. Demoralization, which is characterized by helplessness and loss of meaning and purpose, should be evaluated and distinguished from the presence of a depressive disorder.<sup>233,234</sup> A psychiatrist, psychologist, nurse, advanced practice clinician, or social worker may perform the evaluation. All of these professionals are skilled in mental health assessment and treatment.

Patients with mental illness experience cancer disparities, such as increased cancer mortality rates, more advanced cancer at time of diagnosis, and more comorbidities.<sup>235-239</sup> A systematic review including 13 studies showed that pre-existing severe mental illness in patients with

breast cancer is associated with less or delayed guideline-concordant care.<sup>240</sup> Barriers for cancer care in patients with severe psychiatric disorders include lack of self-care, social isolation, poor adherence to medication, poor recall of medical information, interactions between cancer treatment and psychotropic medications, communication challenges, inadequate psychiatric treatment, inability to recognize signs and symptoms of cancer, stigma, fragmented care, and logistical challenges (eg, transportation difficulties).<sup>241,242</sup>

The panel has developed evaluation and treatment guidelines for the most commonly encountered psychiatric disorders, consistent with the classification in the most recent edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM).<sup>243</sup> These disorders include: neurocognitive disorders (dementia and delirium), depressive disorders, bipolar and related disorders, trauma- and stressor-related disorders (including adjustment disorders), anxiety disorders, substance-related and addictive disorders, schizophrenia spectrum and other psychotic disorders, obsessive compulsive and related disorders, and personality disorders. Psychotropic drugs are recommended throughout the guidelines to treat psychiatric disorders. It is important to note that these drugs can sometimes interact with anticancer therapies and cause adverse effects.

Patients considered to be a danger to themselves or others should be referred to psychiatry. Increased monitoring, safety planning, and removal of guns and other dangerous objects are warranted. For formal assessment of suicide risk, the Joint Commission's Suicide Prevention Recommendations should be followed (<https://www.jointcommission.org/resources/patient-safety-topics/suicide-prevention/>). Homicide risk evaluation may also sometimes be necessary. Directing patients to the emergency department for further psychiatric evaluation may be considered. Mental health treatment/follow-up of these





patients, family education regarding safety, and assuring the safety of others is warranted. Referral to social work, counseling, or chaplaincy care may also be considered.

Additional information regarding treatment of distress and psychiatric disorders in cancer can be found in the comprehensive handbook, *Psycho-Oncology: A Quick Reference on the Psychosocial Dimensions of Cancer Symptom Management*,<sup>244</sup> and the comprehensive textbook, *Psycho-Oncology*.<sup>245</sup> Additional resources targeting specific age groups include the comprehensive handbooks, *Geriatric Psycho-Oncology: A Quick Reference on the Psychosocial Dimensions of Cancer Symptom Management*,<sup>246</sup> and *Pediatric Psycho-Oncology: A Quick Reference on the Psychosocial Dimensions of Cancer Symptom Management*,<sup>247</sup> which target management of psychological, cognitive, and social difficulties in older adults and children/adolescents, respectively. The NCCN Guidelines for Supportive Care may also be referred to as needed (available at [www.NCCN.org](http://www.NCCN.org)).

### Neurocognitive Disorders

Neurocognitive disorders that may affect patients with cancer include dementia and delirium. Dementia and delirium are cognitive impairments that can severely alter the patient's decision-making capacity. Dementia is a permanent cognitive impairment. It is not a common complication of cancer treatment, but is often present in elderly patients as a comorbid condition.<sup>248,249</sup> Patients living with dementia are diagnosed at a later stage of cancer, receive less treatment (including treatment of cancer-related pain), experience more complications and greater treatment burden, are associated with a greater caregiver burden for families, and have poorer survival, compared to patients without dementia.<sup>239,250</sup> Dementia can be treated with cognitive rehabilitation, with or without medications, although treatment is largely behavior management.

Delirium is a short-term cognitive impairment that is very common in patients in palliative care settings.<sup>251</sup> Approximately one in three patients who are admitted to inpatient palliative care are delirious.<sup>251</sup> Risk factors for delirium include CNS tumors, toxicities from cancer treatment (eg, radiation therapy to the brain and certain chemotherapy regimens), physical complications (eg, metabolic encephalopathy, electrolyte abnormalities, dehydration), certain medications (eg, anxiolytics, opioids), and other predisposing comorbidities (eg, older age, pre-existing cognitive impairment, substance use).<sup>252</sup> A prospective case-control cohort study (N = 245) showed a significant association between benzodiazepine use and development of postoperative delirium (odds ratio [OR], 3.0; 95% CI, 1.3–6.8), with stronger associations for long-acting agents (OR, 5.4; 95% CI, 1.0–29.2) and high-dose exposure (OR, 3.3; 95% CI, 1.0–11.0).<sup>253</sup>

A prospective observational study of 243 patients with advanced cancer who presented to an emergency department at an NCCN Member Institution showed that delirium was present in 9% of all patients, but physicians correctly diagnosed delirium in only 59% of patients experiencing delirium.<sup>254</sup> Additional analyses from this study showed that patients with delirium had worse overall survival and were more likely to be hospitalized, compared to patients without delirium.<sup>255</sup> A retrospective chart review of 771 palliative care consultations showed that symptoms of delirium were misinterpreted by the primary oncology team 61% of the time.<sup>256</sup>

Delirium is usually reversible, and treatment depends on factors contributing to the patient's delirium. Delirium is managed by attention to safety, modification of opioids or other medications, antipsychotics, behavior management, and family support and education.<sup>257,258</sup> The European Society of Medical Oncology has issued detailed guidelines describing diagnosis and management of delirium in patients with cancer.<sup>252</sup> In addition, a comprehensive review in *The Journal of Clinical*



*Oncology Special Series on Psychosocial Care in Cancer* by Breitbart and Alici<sup>259</sup> describes the evidence base for recommended pharmacologic and non-pharmacologic treatments for delirium in patients with cancer.

### **Depressive and Bipolar-Related Disorders**

Depressive and bipolar-related disorders are common in patients with cancer and can be debilitating.<sup>260-263</sup> A cross-sectional analysis of 2141 patients with cancer showed a 4-week prevalence rate of 6.5% (95% CI, 5.5–7.5) for a depressive or bipolar-related disorder.<sup>264</sup> Depressive symptoms during cancer diagnosis and treatment may persist for as long as 2 years following diagnosis.<sup>265</sup> Depressive and bipolar-related disorders are associated with poorer cancer survival.<sup>266-268</sup>

Patients with uncontrolled depressive and bipolar-related disorders can develop suicidal tendencies. A study of more than 5000 patients at one center found that 6% of patients with cancer experienced suicidal ideation.<sup>269</sup> The incidence of suicide among patients with cancer in the United States is two to three times higher than that of the general population.<sup>270-273</sup> Older patients, patients who undergo high-morbidity surgeries, and men with head and neck cancer or myeloma seem to have a higher risk of suicide.<sup>273-276</sup> Suicide risk in patients with cancer may be highest in approximately the first 6 months to 2 years following diagnosis.<sup>277,278</sup> A large population-based cohort study including 16,771,397 patients with cancer diagnosed between 2000 and 2016 showed increased suicide risk in the first 2 years following diagnosis in those diagnosed with cancers with poor prognosis and high symptom burden (eg, cancer of the oral cavity, brain cancer, pancreas cancer).<sup>278</sup> After 2 years, suicide risk is increased among those diagnosed with cancers that generally impact long-term quality-of-life (eg, leukemia, female breast cancer, uterine cancer, bladder cancer). Another retrospective cohort study of SEER data including 1,811,397 patients diagnosed with cancer between 2000 and 2016 who underwent surgical

treatment showed that suicide risk is highest in patients with cancers of the larynx, oral cavity and pharynx, esophagus, bladder, pancreas, stomach, lung, ovary, brain, colon, and rectum.<sup>279</sup> Among patients with breast cancer, suicide mortality is associated with younger age, being male, non-White non-Black race, being unmarried, having undergone surgery, having progesterone-receptor–positive disease, and shorter time elapsed since diagnosis.<sup>280</sup> Among patients with colorectal cancer, suicide rates were higher among males than females.<sup>281</sup> Violence may also be associated with depressive disorders, particularly when there is comorbid substance use.<sup>282</sup> Therefore, both suicide and homicide risk should be evaluated in patients believed to be a danger to themselves and others.

Depressive and bipolar-related disorders are usually managed with psychotherapy or psychotropic medication (category 1). The evidence for these treatments has been described.<sup>283-293</sup> There is evidence that telehealth interventions can improve depression outcomes.<sup>294</sup> Referral to social work, and counseling, as well as chaplaincy services, may also be considered. If these patients have no or only a partial response to treatment, then the chosen psychotherapeutic intervention should be re-evaluated. The following options should also be considered: 1) augmenting or changing medication; 2) electroconvulsive therapy (ECT); 3) higher level care with an intensive outpatient program; and 4) re-evaluation of diagnosis and treatment. In ECT, electrical currents are passed through the brain in a controlled fashion, inducing a brief seizure. ECT appears to be an effective treatment for psychotic depression, mania, catatonia, and other psychiatric disorders.<sup>295-298</sup> Although the use of ECT in cancer has not been well-studied, several case studies suggest that it can be safe and effective.<sup>299-301</sup>

ASCO has released a clinical oncology guideline adaptation of a pan-Canadian practice guideline for the screening, assessment, and treatment of anxiety and depression in patients with cancer.<sup>302</sup> The panel



recommends that a validated tool be used to screen for depressive disorders. Brief tools such as the PHQ-2 and PHQ-9 are superior to the DT for this purpose (see *Screening Tools for Distress and Meeting Psychosocial Needs: Distress Thermometer*, above).

### **Schizophrenia Spectrum and Other Psychotic Disorders**

Psychotic disorders include hallucinations, delusions, and/or thought disorders; patients with recurrent psychotic episodes are considered to have a schizophrenia spectrum disorder. Schizophrenia spectrum and other psychotic disorders can exist as comorbidities in patients with cancer and can also be caused or exacerbated by cancer and its associated stress and treatment. In particular, corticosteroids or corticosteroid withdrawal can induce psychosis, which may be relieved by modifying dose or changing corticosteroid choice.<sup>303,304</sup> When a patient in a long-term psychiatric facility develops cancer, there is a need for coordination of care between the psychiatric facility and the inpatient cancer facility. Special attention should be paid to the transition of a patient under psychiatric care who needs inpatient oncology care. The issues around continuation of psychotropic medications, when they must be stopped for surgery or chemotherapy and when they should be restarted, are important issues in total care. Evaluation for any active symptoms of psychosis should be considered when someone with a history of schizophrenia or a psychotic disorder is diagnosed with cancer.

When a psychotic episode occurs in a patient with cancer, differential diagnoses must be ruled out. Delirium is often confused with psychotic disorder and is much more common; dementia, depressive and bipolar-related disorders, and substance-related and addictive disorders should also be considered. When psychotic disorder or schizophrenia spectrum disorder is diagnosed, several interventions can be considered: 1) anti-psychotic medication; 2) medication for mood; 3) admission to a psychiatric unit/hospital; or 4) ECT for psychotic depression/mania or

catatonia. Anti-psychotics may need to be urgently administered if there is risk to self, others, or the environment.

### **Anxiety Disorders and Obsessive Compulsive and Related Disorders**

Anxiety occurs at times in most patients with cancer.<sup>260,305</sup> A cross-sectional analysis of 2141 patients with cancer showed a 4-week prevalence rate of 11.5% (95% CI, 10.2–12.9) for any anxiety disorder.<sup>264</sup> The diagnosis of cancer and the effects of the disease and its treatment are obvious sources of unease; however, anxiety may also be related to physiologic aspects of the medical condition (eg, hormone-secreting tumors; effects of certain types of medications [bronchodilators]; withdrawal from alcohol or narcotics; pain or some other distressing physical symptom). Anxiety may not be severe or problematic, but needs to be addressed when it becomes disruptive. After ruling out medical causes, the clinician should assess symptoms to determine the particular nature of the anxiety disorder(s). Generalized anxiety disorder is usually pre-existing and may be exacerbated by illness. Panic disorder may recur during illness in a person with previous panic symptoms. Patients with cancer may also be at increased risk of agoraphobia.<sup>306</sup> Obsessive-compulsive disorder is a pre-existing disorder that results in difficulty with making decisions, ruminative thoughts about illness, and fearfulness to take medication. Some patients develop phobias of needles, hospitals, and blood or conditioned nausea/vomiting related to chemotherapy. Patients with social anxiety disorder may have difficulty communicating with medical staff.<sup>307</sup> Chemotherapy-induced nausea and vomiting should be managed according to the NCCN Guidelines for Antiemesis (available at [www.NCCN.org](http://www.NCCN.org)). Patients with anxiety associated with religious or spiritual concerns should be referred to chaplaincy care.

The NCCN Distress Management Panel recommends psychotherapy as a category 1 recommendation for the treatment of anxiety disorders,



including obsessive compulsive disorder, after eliminating medical causes. Treatment with an antidepressant or an anxiolytic is also recommended. If there is a response to initial treatment, follow-up should occur with the primary oncology team, primary care physician, and family/caregivers. If no response or a partial response is noted, the patient should be re-evaluated, and referral to psychiatry considered. If there is still not a complete response, then the patient should be evaluated for depression and other psychiatric comorbidity.

The evidence for the effectiveness of these treatments has been reviewed.<sup>39,40</sup> In a review in *The Journal of Clinical Oncology* Special Series on Psychosocial Care in Cancer, Traeger et al<sup>308</sup> give a comprehensive description of the evidence for recommended pharmacologic and non-pharmacologic treatments for anxiety in patients with cancer.

### Trauma- and Stressor-Related Disorders

Trauma and stressor-related disorders that may affect patients with cancer include post-traumatic stress disorder (PTSD), acute stress disorder, and adjustment disorder. PTSD may develop after arduous cancer treatments, during a cancer treatment that triggers a traumatic memory of a past frightening event, or just from the stress of a cancer diagnosis. Survivors of cancer may continue to experience PTSD symptoms,<sup>309-311</sup> and fear of cancer recurrence may be significant.

Reported cancer-related PTSD prevalence rates can vary, with higher rates in studies utilizing self-report questionnaires for evaluation of PTSD symptoms, compared to studies in which PTSD was evaluated with structured, clinical diagnostic interviews.<sup>312-314</sup> Research on PTSD in patients with cancer largely comes from studies of white females with breast cancer.<sup>313</sup> A 2015 meta-analysis including 25 studies with 4189 cancer survivors (mostly survivors of breast cancer) showed that self-

reported PTSD symptoms occur in 7.3% of survivors, while rates based on structured clinical interviews are 12.6% for lifetime PTSD and 6.4% for current PTSD.<sup>315</sup> A similar 2017 meta-analysis showed that prevalence of PTSD in cancer survivors was 12.8% based on self-reported measures and 4.0% if assessed via clinical interview.<sup>314</sup> A 2021 meta-analysis including seven studies of patients with breast cancer showed that clinically significant PTSD symptoms were present in 31.4% of patients prior to receiving treatment.<sup>316</sup> A survey study including 566 survivors of non-Hodgkin's lymphoma showed that one-third reported persistent or worsening PTSD symptoms over a 5-year period.<sup>317</sup> Subsyndromal PTSD, in which PTSD symptoms (including impairment) are reported without meeting full diagnostic criteria, are also reported in patients with cancer.<sup>318</sup>

Risk factors for cancer-related PTSD include: PTSD or other psychiatric diagnosis prior to cancer diagnosis; previous trauma history; lower socioeconomic status (SES); younger age at cancer diagnosis; limited social support, or perception of negative social support; low emotional self-efficacy; avoidant coping; diagnosis of advanced disease; invasive cancer treatment; dissociative symptoms relating to one's cancer experience; and persistent intrusive re-experiencing of one's own cancer experiences.<sup>313,315,319-329</sup> A meta-analysis including 26 studies showed that post-traumatic stress symptoms were significantly positively associated with depression ( $r = 0.56$ ), anxiety ( $r = 0.65$ ), and distress ( $r = 0.62$ ), and negatively associated with social support ( $r = -0.33$ ) and physical quality of life ( $r = -0.44$ ).<sup>330</sup> A study including 82 patients with head and neck or lung cancer showed that elevated dissociative reactions and heightened emotional distress in the month following initial cancer diagnosis were significantly associated with cancer-related PTSD after completing treatment.<sup>319</sup> Another study including 352 patients with breast cancer showed a significant correlation between cancer-related traumatic stress and perceived problematic interactions with nurses and physicians ( $P < .01$ ).<sup>326</sup>





# NCCN Guidelines Version 2.2024

## Distress Management

Although many patients may describe aspects of their cancer journey as “traumatic”,<sup>331,332</sup> the stressor criterion in the most up-to-date DSM (“exposure to actual or threatened death, serious injury, or sexual violence”) is not intended to necessarily include cancer diagnosis and treatment, as meeting this criterion requires a “sudden, catastrophic event”.<sup>243</sup> Although an event in which severe complications or adverse events are experienced may qualify for this criterion, meeting additional criteria is also required. Specifically, these criteria are those relating to intrusion, avoidance, negative alteration in cognition and mood, and increased arousal and/or reactivity. Symptoms must also be present for more than 1 month, cause significant distress or impairment in functioning, and must not be attributed to effects of a substance or other medical condition. A study including 250 young adult survivors of cancer found that prevalence of qualifying traumatic event exposure was significantly lower when using the updated DSM-5 criteria, compared to DSM-IV criteria.<sup>333</sup> Another study including 291 survivors of hematologic cancer also showed that cancer-related PTSD rates were lower when utilizing DSM-5 criteria, compared to DSM-IV criteria.<sup>332</sup> More research on PTSD diagnostic criteria from the 5<sup>th</sup> edition of the DSM in patients with cancer is needed.

Evaluation for adjustment disorder should be done for patients who meet only some of the criteria for PTSD, if symptoms are not better explained by alternate disorders (eg, an anxiety or depressive disorder).<sup>312</sup> Acute stress disorder is diagnosed in the first month following a traumatic event, and the criteria contain a greater emphasis on dissociative symptoms. Twenty-three percent to 28% of patients diagnosed with cancer meet the criteria for acute stress disorder.<sup>325,334-337</sup> A study of 82 patients with head and neck cancer or lung cancer showed that only 40% of patients diagnosed with acute stress disorder in the month following diagnosis met criteria for PTSD at 12-month follow-up (based on the 4<sup>th</sup> edition of the DSM), indicating that acute stress disorder may not strongly predict later diagnosis of PTSD.<sup>325</sup> Adjustment disorder refers to a cluster of symptoms

such as stress, depressive symptoms, and physical symptoms following a stressful life event such as cancer diagnosis and treatment. It may be diagnosed when a patient who experienced a stressful life event does not meet criteria for PTSD or acute stress disorder. Adjustment disorder occurs in 15.4% of patients in palliative care settings and in 11% to 19% of patients in oncologic and hematologic settings.<sup>264,338,339</sup>

For the 2023 Guidelines update, the panel separated management recommendations for adjustment disorder and PTSD and acute stress disorder. Evaluation and management of these three trauma- and stressor-related disorders are the same, except the following should be considered for PTSD and acute stress disorder: evaluation, diagnostic studies, and modification of factors relating to nausea/vomiting, withdrawal states, panic attacks, hypervigilance, fears, irritability, alcohol and recreational drug use, and spiritual/religious concerns. Treatment of these disorders includes psychotherapy (category 1) with or without an antidepressant and/or an anxiolytic. If this treatment yields no response or a partial response, then psychotherapy, support, and education should be reevaluated. Choice of medication should also be reconsidered, with a consideration of antipsychotics, and referral to psychiatry should be considered. The National Cancer Institute’s Physician Data Query (PDQ) provides information on cancer-related posttraumatic stress education resources that may be useful for patients (<https://www.cancer.gov/about-cancer/coping/survivorship/new-normal/ptsd-pdq>) and health care professionals (<https://www.cancer.gov/about-cancer/coping/survivorship/new-normal/ptsd-hp-pdq>).

### Substance-Related and Addictive Disorders

Substance use and addiction are rare among patients with cancer who do not have a history of active use or addiction to opioids, alcohol, tobacco, cannabis, caffeine, or other supplements or prescription drugs. Substance use disorder developing during the course of the treatment may be due to



# NCCN Guidelines Version 2.2024

## Distress Management

insufficient symptom control and can be treated by improving symptom control. Alcohol and recreational drug use should be evaluated in patients with signs and symptoms of depressive disorders, bipolar and related disorders, and anxiety disorders, as substance use may exacerbate symptoms of these disorders. Safety concerns, as well as the patient's decision-making ability, motivation to quit/cut back, and family and home environment, should be evaluated. The NCCN Guidelines for Adult Cancer Pain (available at [www.NCCN.org](http://www.NCCN.org)) provide information on prescription, titration, maintenance, and safety of opioids. For patients who use tobacco, see the NCCN Guidelines for Smoking Cessation (available at [www.NCCN.org](http://www.NCCN.org)).

For patients with recent problematic substance use who are motivated to quit/cut back, treatment includes referral to an outpatient substance use program, psychotherapy, and a mutual support group. Other risk reduction strategies that may be considered for these patients include psychiatric medication, medication-assisted treatment, and naloxone. If there is no response or a partial response to treatment, then referral to an intensive outpatient or residential program is recommended. Brief motivational interviewing may be done with patients who are not motivated to quit/cut back, until they are ready to do so. For patients who are currently intoxicated, alternate transportation home should be arranged, and referral to an emergency department should be considered. Patients with a history of substance use disorder should also be monitored for signs and symptoms of relapse. Relapse prevention and/or a mutual support group may also be recommended for these patients.

### Personality Disorders

Patients with cancer may have a pre-existing personality disorder, which can be exacerbated by the stress of cancer and its treatment.<sup>340</sup> When a personality disorder is suspected, the patient should be evaluated by a mental health professional, and safety, home situation, and decision-

making capacity should be assessed. Referral to psychiatry should be considered. If possible, any medication or other factors that could be aggravating the condition should be modified. A coordinated behavioral, psychological, and medical treatment plan, with or without medication, should be developed with the health care team.

### Social Work and Counseling Services

Social work and counseling interventions are recommended when a patient has a psychosocial or practical problem. Practical problems, which may be addressed by case managers and patient navigators, are illness-related concerns; basic needs (eg, housing, food, financial/insurance concerns, help with activities of daily living, transportation); employment, school, or career concerns; cultural or language issues; and family/caregiver availability. The Guidelines outline interventions that vary according to the severity of the problem.

Common psychosocial problems are adjustment to illness; family conflicts and social isolation; difficulties in treatment decision-making; quality-of-life issues; difficulties with transitions in care; absent or unclear advance directive or other concerns about advance directives; domestic abuse and neglect; poor coping or communication skills; concerns about functional changes (eg, body image, sexual health); depressive symptoms and/or suicidal ideation; fears, nervousness, and worry; and issues pertaining to end of life and bereavement (including cultural and caregiver concerns).

Social work and counseling interventions for psychosocial problems are described in the Guidelines. Social workers intervene in mild psychosocial problems by using patient and family education, support groups, and/or sexual health or grief counseling and by suggesting available local resources. Social workers can also help foster healthy coping strategies, such as problem solving, cognitive restructuring, and emotional regulation.<sup>341</sup> For moderate to severe psychosocial problems, counseling



and psychotherapy are used (including sexual health and grief counseling); community resources are mobilized; problem solving is taught; and advocacy, education, and protective services are made available.

### **Spiritual and Chaplaincy Care**

Religiousness and spirituality are positively associated with mental health in patients with cancer,<sup>342</sup> and attendance at religious services is associated with lower cancer-related mortality.<sup>343</sup> Many patients use their religious and spiritual resources to cope with illness,<sup>344</sup> and many cite prayer as a major help. In addition, the diagnosis of cancer can cause an existential crisis, making spiritual support of critical importance. Balboni et al<sup>345</sup> surveyed 230 patients with advanced cancer treated at multiple institutions who did not respond to first-line chemotherapy. The majority of patients (88%) considered religion as somewhat or very important. Nearly half of the patients (47%) reported receiving very minimal or no support at all from their religious community, and 72% reported receiving little or no support from their medical system.<sup>345</sup> Importantly, patients receiving spiritual support reported a higher quality of life. Religiousness and spiritual support have also been associated with improved satisfaction with medical care. Astrow et al<sup>346</sup> found that 73% of patients with cancer had spiritual needs, and that patients whose spiritual needs were not met reported lower quality of care and lower satisfaction with their care. A multi-institution study of 75 patients with cancer and 339 oncologists and nurses (the Religion and Spirituality in Cancer Care Study) found that spiritual care had a positive effect on patient-provider relationships and the emotional well-being of patients.<sup>347</sup> However, a survey conducted in 2006 through 2009 found that most patients with advanced cancer never receive spiritual care from their oncology team.<sup>348</sup> Spiritual needs may include searching for the meaning and purpose of life; searching for the meaning in experiencing a disease like cancer; being connected to others, a deity, and nature; maintaining access to religious/spiritual practices;

spiritual well-being; talking about death and dying; making the most of one's own life; and being independent and treated like a "normal person."<sup>349</sup>

Multiple meta-analyses show that spiritual interventions improve quality of life, as well as depression and anxiety, although effects may be small, and included studies in these reviews are often varied in their design.<sup>350-352</sup> A meta-analysis including 24 studies showed that existential interventions positively affected existential well-being, quality of life, hope, and self-efficacy, although results were moderated by interventional characteristics (eg, therapist's professional background, intervention setting).<sup>353</sup>

The panel has included chaplaincy care as part of psychosocial services. All patients should be referred to a chaplaincy professional when their problems are spiritual or religious in nature or when they request it. Guided by the Religious and Spiritual Struggles Scale<sup>354</sup> and the Existential Concerns Questionnaire,<sup>355</sup> the panel identified issues that should be included as part of evaluation by a chaplain: interpersonal conflict regarding spiritual/religious beliefs and practices; concerns with lack of meaning and purpose; struggles with morality and values; doubts about beliefs; perceptions of being attacked by evil; preoccupation about religiosity; issues of forgiveness; concerns about one's relationship with the sacred; concerns about death, dying, and the afterlife; grief and loss; feeling worthless or like a burden; loneliness; conflict between religious beliefs and treatment options; and ritual needs.

The panel has identified interventions that may be carried out based on this assessment. These interventions, which are based on recommendations by Spiritual Health Victoria (<https://www.spiritualhealth.org.au/standards>), include spiritual/existential counseling, education, and rituals; meditation and/or prayer; referral to appropriate spiritual/existential community resources; and referral to other





# NCCN Guidelines Version 2.2024

## Distress Management

health care professionals (eg, palliative care, mental health professional) as needed.

The following guidelines on religion and spirituality in cancer care may also be useful for clinicians and patients:

- National Consensus Project Clinical Practice Guidelines for Quality Palliative Care, Fourth Edition, 2018 (<https://www.nationalcoalitionhpc.org/ncp/>). These guidelines provide a framework to acknowledge the patient's religious and spiritual needs in a clinical setting. Spiritual, religious, and existential aspects of care are included as 1 of the 8 clinical practice domains.
- The National Cancer Institute's comprehensive cancer information database (PDQ) has information on "Spirituality in Cancer Care" for patients (<http://www.cancer.gov/cancertopics/pdq/supportivecare/spirituality/Patient>) and for health care professionals (<http://www.cancer.gov/cancertopics/pdq/supportivecare/spirituality/HealthProfessional>).

### Oncologist Burnout

The stress and demands of treating patients with cancer and making life and death decisions daily often cause psychologic distress for oncologists. This distress can in turn cause depression, anxiety, and fatigue. It can also cause moral distress, compassion fatigue, and/or burnout. Burnout, characterized by a lack of enthusiasm for work, feelings of cynicism, and a low sense of personal accomplishment with work, occurs in as many as 28% to 45% of oncologists.<sup>356-359</sup> Burnout can affect patient care, physician-patient relationships, and personal relationships and can lead to substance use disorder and even suicide. Strategies for avoiding and reducing burnout include training in self-care, personal wellness, and mindful meditation, and behavioral change by medical schools, residency programs, hospitals, and private practices.<sup>356,360</sup> Organizational strategies

can also create a culture that is less stressful and less conducive to oncologist burnout.

### Summary

Psychosocial care is an integral component of the clinical management of patients with cancer. The CoC's accreditation standards include distress screening for all patients and referral for psychosocial care as needed. Screening for and treating distress in cancer benefits patients, their families/caregivers, and staff and helps improve the efficiency of clinic operations. For patients with cancer, integration of mental health and medical services is critically important. Spirituality and religion also play an important role in coping with the diagnosis and the illness for many patients with cancer.

The NCCN Guidelines for Distress Management recommend that each new patient be rapidly evaluated in the office or clinic waiting room for evidence of distress using the DT and Problem List as an initial global screen. A score of 4 or greater on the DT should trigger further evaluation by the oncologist or nurse and referral to an appropriate resource, if needed. The choice of which supportive care service is needed is dependent on the problem areas specified on the Problem List. Patients with practical and psychosocial problems should be referred to social work and counseling services; those with emotional or psychological problems should be referred to mental health professionals; and spiritual concerns should be referred to chaplaincy care. Physical concerns may be best managed by the medical team.

Education of patients and families regarding distress is important, and they should be encouraged to recognize that controlling distress is an integral part of their total cancer care. The patient version of the NCCN Guidelines for Distress Management is a useful tool to accomplish this (<https://www.nccn.org/patientresources/patient-resources>).



## References

1. Miller KD, Nogueira L, Devasia T, et al. Cancer treatment and survivorship statistics, 2022. *CA Cancer J Clin* 2022;72:409-436. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/35736631>.
2. Siegel RL, Giaquinto AN, Jemal A. Cancer statistics, 2024. *CA Cancer J Clin* 2024;74:12-49. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/38230766>.
3. Dantzer R, O'Connor JC, Freund GG, et al. From inflammation to sickness and depression: when the immune system subjugates the brain. *Nat Rev Neurosci* 2008;9:46-56. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/18073775>.
4. Miller K, Massie MJ. Depression and anxiety. *Cancer J* 2006;12:388-397. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/17034675>.
5. Reiche EM, Nunes SO, Morimoto HK. Stress, depression, the immune system, and cancer. *Lancet Oncol* 2004;5:617-625. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/15465465>.
6. Hawkins NA, Soman A, Buchanan Lunsford N, et al. Use of medications for treating anxiety and depression in cancer survivors in the United States. *J Clin Oncol* 2017;35:78-85. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28034075>.
7. Funk R, Cisneros C, Williams RC, et al. What happens after distress screening? Patterns of supportive care service utilization among oncology patients identified through a systematic screening protocol. *Support Care Cancer* 2016;24:2861-2868. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/26838023>.
8. Krebber AM, Jansen F, Cuijpers P, et al. Screening for psychological distress in follow-up care to identify head and neck cancer patients with untreated distress. *Support Care Cancer* 2016;24:2541-2548. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/26694718>.
9. Mehnert A, Hartung TJ, Friedrich M, et al. One in two cancer patients is significantly distressed: prevalence and indicators of distress. *Psychooncology* 2018;27:75-82. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28568377>.
10. Sun H, Lv H, Zeng H, et al. Distress Thermometer in breast cancer: systematic review and meta-analysis. *BMJ Support Palliat Care* 2022;12:245-252. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/33975827>.
11. Traeger L, Cannon S, Keating NL, et al. Race by sex differences in depression symptoms and psychosocial service use among non-Hispanic black and white patients with lung cancer. *J Clin Oncol* 2014;32:107-113. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24323033>.
12. Carlsen K, Jensen AB, Jacobsen E, et al. Psychosocial aspects of lung cancer. *Lung Cancer* 2005;47:293-300. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/15713512>.
13. Holland JC, Alici Y. Management of distress in cancer patients. *J Support Oncol* 2010;8:4-12. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/20235417>.
14. Linden W, Vodermaier A, Mackenzie R, Greig D. Anxiety and depression after cancer diagnosis: prevalence rates by cancer type, gender, and age. *J Affect Disord* 2012;141:343-351. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22727334>.
15. Hall AE, Sanson-Fisher RW, Carey ML, et al. Prevalence and associates of psychological distress in haematological cancer survivors. *Support Care Cancer* 2016;24:4413-4422. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27245984>.
16. Alfonsso S, Olsson E, Hursti T, et al. Socio-demographic and clinical variables associated with psychological distress 1 and 3 years after breast cancer diagnosis. *Support Care Cancer* 2016;24:4017-4023. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27129841>.
17. Howren MB, Christensen AJ, Karnell LH, Funk GF. Psychological factors associated with head and neck cancer treatment and survivorship: evidence and opportunities for behavioral medicine. *J Consult Clin*



# NCCN Guidelines Version 2.2024

## Distress Management

Psychol 2013;81:299-317. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/22963591>.

18. Barnes AF, Yeo TP, Leiby B, et al. Pancreatic cancer-associated depression: a case report and review of the literature. *Pancreas* 2018;47:1065-1077. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/30199487>.

19. Bober SL, Varela VS. Sexuality in adult cancer survivors: challenges and intervention. *J Clin Oncol* 2012;30:3712-3719. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/23008322>.

20. Donovan KA, Thompson LM, Hoffe SE. Sexual function in colorectal cancer survivors. *Cancer Control* 2010;17:44-51. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/20010518>.

21. Laumann EO, Paik A, Rosen RC. Sexual dysfunction in the United States: prevalence and predictors. *JAMA* 1999;281:537-544. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/10022110>.

22. Ringwald J, Wochnowski C, Bosse K, et al. Psychological distress, anxiety, and depression of cancer-affected BRCA1/2 mutation carriers: a systematic review. *J Genet Couns* 2016;25:880-891. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/27074860>.

23. Hirschberg AM, Chan-Smutko G, Pirl WF. Psychiatric implications of cancer genetic testing. *Cancer* 2015;121:341-360. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/25234846>.

24. Mausbach BT, Schwab RB, Irwin SA. Depression as a predictor of adherence to adjuvant endocrine therapy (AET) in women with breast cancer: a systematic review and meta-analysis. *Breast Cancer Res Treat* 2015;152:239-246. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/26077640>.

25. Lin C, Clark R, Tu P, et al. Breast cancer oral anti-cancer medication adherence: a systematic review of psychosocial motivators and barriers. *Breast Cancer Res Treat* 2017;165:247-260. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/28573448>.

26. Bultz BD, Carlson LE. Emotional distress: the sixth vital sign in cancer care. *J Clin Oncol* 2005;23:6440-6441. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/16155033>.

27. Carlson LE, Bultz BD. Efficacy and medical cost offset of psychosocial interventions in cancer care: making the case for economic analyses. *Psychooncology* 2004;13:837-849. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/15578622>.

28. Nipp RD, El-Jawahri A, Moran SM, et al. The relationship between physical and psychological symptoms and health care utilization in hospitalized patients with advanced cancer. *Cancer* 2017;123:4720-4727. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/29057450>.

29. Massie MJ. Prevalence of depression in patients with cancer. *J Natl Cancer Inst Monogr* 2004:57-71. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/15263042>.

30. Pirl WF, Greer JA, 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. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/22430269>.

31. Batty GD, Russ TC, Stamatakis E, Kivimaki M. Psychological distress in relation to site specific cancer mortality: pooling of unpublished data from 16 prospective cohort studies. *BMJ* 2017;356:j108. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/28122812>.

32. Carmack CL, Basen-Engquist K, Gritz ER. Survivors at higher risk for adverse late outcomes due to psychosocial and behavioral risk factors. *Cancer Epidemiol Biomarkers Prev* 2011;20:2068-2077. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/21980014>.

33. Zebrack B, Kayser K, Bybee D, et al. A practice-based evaluation of distress screening protocol adherence and medical service utilization. *J Natl Compr Canc Netw* 2017;15:903-912. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/28687578>.



# NCCN Guidelines Version 2.2024

## Distress Management

34. Carlson LE, Groff SL, Maciejewski O, Bultz BD. Screening for distress in lung and breast cancer outpatients: a randomized controlled trial. *J Clin Oncol* 2010;28:4884-4891. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/20940193>.

35. Fallowfield L, Ratcliffe D, Jenkins V, Saul J. Psychiatric morbidity and its recognition by doctors in patients with cancer. *Br J Cancer* 2001;84:1011-1015. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/11308246>.

36. Holland JC. American Cancer Society Award lecture. Psychological care of patients: psycho-oncology's contribution. *J Clin Oncol* 2003;21:253s-265s. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/14645405>.

37. Fitchett G, Handzo G. Spiritual assessment, screening, and intervention. In: Holland JC, ed. *Psycho Oncology*. New York: Oxford University Press; 1998:790-808.

38. Holland JC, Greenberg DB, Hughes MK. *Quick Reference for Oncology Clinicians: The Psychiatric and Psychological Dimensions of Cancer Symptom Management* Oncology IPOS press; 2006.

39. Adler NE, Page NEK. Institute of Medicine (IOM). *Cancer Care for the Whole Patient: Meeting Psychosocial Health Needs*. 2008. Available at: <https://pubmed.ncbi.nlm.nih.gov/20669419/>.

40. 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. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/18558664>.

41. Holland JC, Lazenby M, Loscalzo MJ. Was there a patient in your clinic today who was distressed? *J Natl Compr Canc Netw* 2015;13:1054-1056. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/26358788>.

42. Gordon DB, Dahl JL, Miaskowski C, et al. American pain society recommendations for improving the quality of acute and cancer pain management: American Pain Society Quality of Care Task Force. *Arch*

*Intern Med* 2005;165:1574-1580. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/16043674>.

43. Lazenby M, Ercolano E, Grant M, et al. Supporting commission on cancer-mandated psychosocial distress screening with implementation strategies. *J Oncol Pract* 2015;11:e413-420. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25758447>.

44. Zebrack B, Kayser K, Padgett L, et al. Institutional capacity to provide psychosocial oncology support services: A report from the Association of Oncology Social Work. *Cancer* 2016;122:1937-1945. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27070342>.

45. Deshields T, Kracen A, Nanna S, Kimbro L. Psychosocial staffing at National Comprehensive Cancer Network member institutions: data from leading cancer centers. *Psychooncology* 2016;25:164-169. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25963109>.

46. Rodriguez MA, Tortorella F, St John C. Improving psychosocial care for improved health outcomes. *J Healthc Qual* 2010;32:3-12. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/20618566>.

47. Frost GW, Zevon MA, Gruber M, Scrivani RA. Use of distress thermometers in an outpatient oncology setting. *Health Soc Work* 2011;36:293-297. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22308881>.

48. Hammelef KJ, Friese CR, Breslin TM, et al. Implementing distress management guidelines in ambulatory oncology: a quality improvement project. *Clin J Oncol Nurs* 2014;18 Suppl:31-36. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24480661>.

49. Hammonds LS. Implementing a distress screening instrument in a university breast cancer clinic: a quality improvement project. *Clin J Oncol Nurs* 2012;16:491-494. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23022932>.





# NCCN Guidelines Version 2.2024

## Distress Management

50. Hendrick SS, Cobos E. Practical model for psychosocial care. *J Oncol Pract* 2010;6:34-36. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/20539730>.

51. Loscalzo M, Clark KL, Holland J. Successful strategies for implementing biopsychosocial screening. *Psychooncology* 2011;20:455-462. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21456059>.

52. Mehta A, Hamel M. The development and impact of a new Psychosocial Oncology Program. *Support Care Cancer* 2011;19:1873-1877. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21681386>.

53. Wagner LI, Spiegel D, Pearman T. Using the science of psychosocial care to implement the new american college of surgeons commission on cancer distress screening standard. *J Natl Compr Canc Netw* 2013;11:214-221. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23411387>.

54. Ercolano E, Hoffman E, Tan H, et al. Managing psychosocial distress: lessons learned in optimizing screening program implementation. *Oncology (Williston Park)* 2018;32:488-490, 492-483. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/30334237>.

55. Aburizik A, Raque TL, Spitz N, et al. Responding to distress in cancer care: increasing access to psycho oncology services through integrated collaborative care. *Psychooncology* 2023;32:1675-1683. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/37724636>.

56. Tavernier SS, Beck SL, Dudley WN. Diffusion of a Distress Management Guideline into practice. *Psychooncology* 2013;22:2332-2338. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23712894>.

57. Knies AK, Jutagir DR, Ercolano E, et al. Barriers and facilitators to implementing the commission on cancer's distress screening program standard. *Palliat Support Care* 2019;17:253-261. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/29880068>.

58. Senf B, Fettel J, Demmerle C, Maiwurm P. Physicians' attitudes towards psycho-oncology, perceived barriers, and psychosocial

competencies: Indicators of successful implementation of adjunctive psycho-oncological care? *Psychooncology* 2019;28:415-422. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/30512208>.

59. Kayser K, Brydon DM, Moon H, Zebrack B. Institutional capacity to provide psychosocial care in cancer programs: addressing barriers to delivering quality cancer care. *Psychooncology* 2020;29:1995-2002. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/32691456>.

60. Pirl WF, Greer JA, Gregorio SW, et al. Framework for planning the delivery of psychosocial oncology services: an American Psychosocial Oncology Society task force report. *Psychooncology* 2020;29:1982-1987. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/32390322>.

61. Neuss MN, Desch CE, McNiff KK, et al. A process for measuring the quality of cancer care: the quality oncology practice initiative. *J Clin Oncol* 2005;23:6233-6239. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/16087948>.

62. Jacobson JO, Neuss MN, McNiff KK, et al. Improvement in oncology practice performance through voluntary participation in the Quality Oncology Practice Initiative. *J Clin Oncol* 2008;26:1893-1898. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/18398155>.

63. Blayney DW, McNiff K, Hanauer D, et al. Implementation of the Quality Oncology Practice Initiative at a University Comprehensive Cancer Center. *J Clin Oncol* 2009;27:3802-3807. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/19487377>.

64. Carlson LE, Waller A, Mitchell AJ. Screening for distress and unmet needs in patients with cancer: review and recommendations. *J Clin Oncol* 2012;30:1160-1177. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22412146>.

65. Fann JR, Ell K, Sharpe M. Integrating psychosocial care into cancer services. *J Clin Oncol* 2012;30:1178-1186. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22412139>.



# NCCN Guidelines Version 2.2024

## Distress Management

66. Lazenby M. The international endorsement of US distress screening and psychosocial guidelines in oncology: a model for dissemination. *J Natl Compr Canc Netw* 2014;12:221-227. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24586084>.

67. Groff S, Holroyd-Leduc J, White D, Bultz BD. Examining the sustainability of screening for distress, the sixth vital sign, in two outpatient oncology clinics: A mixed-methods study. *Psychooncology* 2018;27:141-147. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28128894>.

68. Ehlers SL, Davis K, Bluethmann SM, et al. Screening for psychosocial distress among patients with cancer: implications for clinical practice, healthcare policy, and dissemination to enhance cancer survivorship. *Transl Behav Med* 2019;9:282-291. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/30566662>.

69. Smith SK, Loscalzo M, Mayer C, Rosenstein DL. Best Practices in Oncology Distress Management: Beyond the Screen. *Am Soc Clin Oncol Educ Book* 2018;38:813-821. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/30231391>.

70. Jacobsen PB, Norton WE. The role of implementation science in improving distress assessment and management in oncology: a commentary on "Screening for psychosocial distress among patients with cancer: implications for clinical practice, healthcare policy, and dissemination to enhance cancer survivorship". *Transl Behav Med* 2019;9:292-295. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/30870569>.

71. Deshields TL, Wells-Di Gregorio S, Flowers SR, et al. Addressing distress management challenges: recommendations from the consensus panel of the American Psychosocial Oncology Society and the Association of Oncology Social Work. *CA Cancer J Clin* 2021;71:407-436. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/34028809>.

72. Bultz BD, Groff SL, Fitch M, et al. Implementing screening for distress, the 6th vital sign: a Canadian strategy for changing practice. *Psychooncology* 2011;20:463-469. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21456060>.

73. Fitch MI, Ashbury F, Nicoll I. Reflections on the implementation of screening for distress (sixth vital sign) in Canada: key lessons learned. *Support Care Cancer* 2018;26:4011-4020. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/29858691>.

74. Dolbeault S, Boistard B, Meuric J, et al. Screening for distress and supportive care needs during the initial phase of the care process: a qualitative description of a clinical pilot experiment in a French cancer center. *Psychooncology* 2011;20:585-593. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21425386>.

75. Grassi L, Rossi E, Caruso R, et al. Educational intervention in cancer outpatient clinics on routine screening for emotional distress: an observational study. *Psychooncology* 2011;20:669-674. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21370316>.

76. Okuyama T, Kizawa Y, Morita T, et al. Current status of distress screening in designated cancer hospitals: a cross-sectional nationwide survey in Japan. *J Natl Compr Canc Netw* 2016;14:1098-1104. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27587622>.

77. van Nuenen FM, Donofrio SM, Tuinman MA, et al. Feasibility of implementing the 'Screening for Distress and Referral Need' process in 23 Dutch hospitals. *Support Care Cancer* 2017;25:103-110. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27565789>.

78. Meijer A, Roseman M, Delisle VC, et al. Effects of screening for psychological distress on patient outcomes in cancer: a systematic review. *J Psychosom Res* 2013;75:1-17. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23751231>.

79. Bultz BD, Carlson LE. A commentary on 'effects of screening for psychological distress on patient outcomes in cancer: a systematic review'. *J Psychosom Res* 2013;75:18-19. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23751232>.

80. Schouten B, Avau B, Bekkering GTE, et al. Systematic screening and assessment of psychosocial well-being and care needs of people with



# NCCN Guidelines Version 2.2024

## Distress Management

cancer. Cochrane Database Syst Rev 2019;3:CD012387. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/30909317>.

81. Mitchell AJ. Screening for cancer-related distress: when is implementation successful and when is it unsuccessful? *Acta Oncol* 2013;52:216-224. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23320770>.

82. Braeken AP, Kempen GI, Eekers DB, et al. Psychosocial screening effects on health-related outcomes in patients receiving radiotherapy. A cluster randomised controlled trial. *Psychooncology* 2013;22:2736-2746. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/23824561>.

83. Mitchell AJ. 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. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/17846453>.

84. Shinn EH, Valentine A, Baum G, et al. Comparison of four brief depression screening instruments in ovarian cancer patients: Diagnostic accuracy using traditional versus alternative cutpoints. *Gynecol Oncol* 2017;145:562-568. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28400146>.

85. Syrjala KL, Sutton SK, Jim HS, et al. Cancer and treatment distress psychometric evaluation over time: A BMT CTN 0902 secondary analysis. *Cancer* 2017;123:1416-1423. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27893933>.

86. Braeken AP, Lechner L, Eekers DB, et al. Does routine psychosocial screening improve referral to psychosocial care providers and patient-radiotherapist communication? A cluster randomized controlled trial. *Patient Educ Couns* 2013;93:289-297. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/23992914>.

87. Mitchell AJ, Kaar S, Coggan C, Herdman J. Acceptability of common screening methods used to detect distress and related mood disorders—preferences of cancer specialists and non-specialists. *Psychooncology*

2008;17:226-236. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/17575565>.

88. Mitchell AJ. Short screening tools for cancer-related distress: a review and diagnostic validity meta-analysis. *J Natl Compr Canc Netw* 2010;8:487-494. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/20410338>.

89. Berry DL, Hong F, Halpenny B, et al. Electronic self-report assessment for cancer and self-care support: results of a multicenter randomized trial. *J Clin Oncol* 2014;32:199-205. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/24344222>.

90. Carlson LE, Waller A, Groff SL, et al. Online screening for distress, the 6th vital sign, in newly diagnosed oncology outpatients: randomised controlled trial of computerised vs personalised triage. *Br J Cancer* 2012;107:617-625. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22828610>.

91. Loscalzo M, Clark K, Dillehunt J, et al. SupportScreen: a model for improving patient outcomes. *J Natl Compr Canc Netw* 2010;8:496-504. Available at: <http://www.jnccn.org/content/8/4/496.abstract>.

92. Lundy JJ, Coons SJ, Aaronson NK. Testing the measurement equivalence of paper and interactive voice response system versions of the EORTC QLQ-C30. *Qual Life Res* 2014;23:229-237. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/23765449>.

93. Taylor J, Fradgley EA, Clinton-McHarg T, et al. Distress screening and supportive care referrals used by telephone-based health services: a systematic review. *Support Care Cancer* 2020;28:2059-2069. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/31872298>.

94. Ma X, Zhang J, Zhong W, et al. The diagnostic role of a short screening tool—the distress thermometer: a meta-analysis. *Support Care Cancer* 2014;22:1741-1755. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/24510195>.





95. Chambers SK, Zajdlewicz L, Youlden DR, et al. The validity of the distress thermometer in prostate cancer populations. *Psychooncology* 2014;23:195-203. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/24027194>.

96. Deng YT, Zhong WN, Jiang Y. Measurement of distress and its alteration during treatment in patients with nasopharyngeal carcinoma. *Head Neck* 2014;36:1077-1086. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/23804505>.

97. Grassi L, Johansen C, Annunziata MA, et al. Screening for distress in cancer patients: a multicenter, nationwide study in Italy. *Cancer* 2013;119:1714-1721. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/23423789>.

98. Iskandarsyah A, de Klerk C, Suardi DR, et al. The Distress Thermometer and its validity: a first psychometric study in Indonesian women with breast cancer. *PLoS One* 2013;8:e56353. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/23418561>.

99. Lim HA, Mahendran R, Chua J, et al. The Distress Thermometer as an ultra-short screening tool: a first validation study for mixed-cancer outpatients in Singapore. *Compr Psychiatry* 2014;55:1055-1062. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24556515>.

100. Martinez P, Galdon MJ, Andreu Y, Ibanez E. The Distress Thermometer in Spanish cancer patients: convergent validity and diagnostic accuracy. *Support Care Cancer* 2013;21:3095-3102. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23832312>.

101. Thalen-Lindstrom A, Larsson G, Hellbom M, et al. Validation of the Distress Thermometer in a Swedish population of oncology patients; accuracy of changes during six months. *Eur J Oncol Nurs* 2013;17:625-631. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23343788>.

102. Wang Y, Zou L, Jiang M, et al. Measurement of distress in Chinese inpatients with lymphoma. *Psychooncology* 2013;22:1581-1586. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22936310>.

103. Lotfi-Jam K, Gough K, Schofield P, Aranda S. Profile and predictors of global distress: can the DT guide nursing practice in prostate cancer? *Palliat Support Care* 2014;12:5-14. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/23919955>.

104. Olesen ML, Hansen MK, Hansson H, et al. The distress thermometer in survivors of gynaecological cancer: accuracy in screening and association with the need for person-centred support. *Support Care Cancer* 2018;26:1143-1150. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/29058130>.

105. Linehan K, Fennell KM, Hughes DL, Wilson CJ. Use of the Distress Thermometer in a cancer helpline context: Can it detect changes in distress, is it acceptable to nurses and callers, and do high scores lead to internal referrals? *Eur J Oncol Nurs* 2017;26:49-55. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/28069152>.

106. Graves KD, Arnold SM, Love CL, et al. Distress screening in a multidisciplinary lung cancer clinic: prevalence and predictors of clinically significant distress. *Lung Cancer* 2007;55:215-224. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/17084483>.

107. Goebel S, Knuth C, Damm M, et al. Towards the targeted assessment of relevant problems: optimization of the Distress Thermometer for adult neuro-oncological patients. *Psychooncology* 2020;29:2057-2066. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/33002245>.

108. Clover KA, Oldmeadow C, Nelson L, et al. Which items on the distress thermometer problem list are the most distressing? *Support Care Cancer* 2016;24:4549-4557. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/27260016>.

109. Tuinman MA, Gazendam-Donofrio SM, Hoekstra-Weebers JE. Screening and referral for psychosocial distress in oncologic practice: use of the Distress Thermometer. *Cancer* 2008;113:870-878. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/18618581>.



110. Donovan KA, Handzo G, Corbett C, et al. NCCN Distress Thermometer Problem List update. *J Natl Compr Canc Netw* 2022;20:96-98. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/34991072>.

111. Janelins MC, Kohli S, Mohile SG, et al. An update on cancer- and chemotherapy-related cognitive dysfunction: current status. *Semin Oncol* 2011;38:431-438. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21600374>.

112. Wefel JS, Vardy J, Ahles T, Schagen SB. International Cognition and Cancer Task Force recommendations to harmonise studies of cognitive function in patients with cancer. *Lancet Oncol* 2011;12:703-708. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21354373>.

113. Hodgson KD, Hutchinson AD, Wilson CJ, Nettelbeck T. A meta-analysis of the effects of chemotherapy on cognition in patients with cancer. *Cancer Treat Rev* 2013;39:297-304. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23219452>.

114. de Ruiter MB, Schagen SB. Functional MRI studies in non-CNS cancers. *Brain Imaging Behav* 2013;7:388-408. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/23934234>.

115. Wefel JS, Kesler SR, Noll KR, Schagen SB. Clinical characteristics, pathophysiology, and management of noncentral nervous system cancer-related cognitive impairment in adults. *CA Cancer J Clin* 2015;65:123-138. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25483452>.

116. Vardy JL, Dhillon HM, Pond GR, et al. Cognitive Function in Patients With Colorectal Cancer Who Do and Do Not Receive Chemotherapy: A Prospective, Longitudinal, Controlled Study. *J Clin Oncol* 2015;33:4085-4092. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/26527785>.

117. Janelins MC, Heckler CE, Peppone LJ, et al. Cognitive complaints in survivors of breast cancer after chemotherapy compared with age-matched controls: an analysis from a nationwide, multicenter, prospective longitudinal study. *J Clin Oncol* 2017;35:506-514. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28029304>.

118. Amidi A, Christensen S, Mehlsen M, et al. Long-term subjective cognitive functioning following adjuvant systemic treatment: 7-9 years follow-up of a nationwide cohort of women treated for primary breast cancer. *Br J Cancer* 2015;113:794-801. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/26171932>.

119. Ahles TA, Saykin AJ. Candidate mechanisms for chemotherapy-induced cognitive changes. *Nat Rev Cancer* 2007;7:192-201. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/17318212>.

120. Deprez S, Vandebulcke M, Peeters R, et al. Longitudinal assessment of chemotherapy-induced alterations in brain activation during multitasking and its relation with cognitive complaints. *J Clin Oncol* 2014;32:2031-2038. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24868029>.

121. Ahles TA, Saykin AJ, McDonald BC, et al. Cognitive function in breast cancer patients prior to adjuvant treatment. *Breast Cancer Res Treat* 2008;110:143-152. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/17674194>.

122. Ahles TA, Saykin AJ, McDonald BC, et al. Longitudinal assessment of cognitive changes associated with adjuvant treatment for breast cancer: impact of age and cognitive reserve. *J Clin Oncol* 2010;28:4434-4440. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/20837957>.

123. Wefel JS, Lenzi R, Theriault RL, et al. The cognitive sequelae of standard-dose adjuvant chemotherapy in women with breast carcinoma: results of a prospective, randomized, longitudinal trial. *Cancer* 2004;100:2292-2299. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/15160331>.

124. McGinty HL, Phillips KM, Jim HS, et al. Cognitive functioning in men receiving androgen deprivation therapy for prostate cancer: a systematic review and meta-analysis. *Support Care Cancer* 2014;22:2271-2280. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/24859915>.

125. Jean-Pierre P, Winters PC, Ahles TA, et al. Prevalence of self-reported memory problems in adult cancer survivors: a national cross-



sectional study. *J Oncol Pract* 2012;8:30-34. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22548008>.

126. Hermelink K, Voigt V, Kaste J, et al. Elucidating pretreatment cognitive impairment in breast cancer patients: the impact of cancer-related post-traumatic stress. *J Natl Cancer Inst* 2015;107. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25882713>.

127. Hermelink K, Buhner M, Sckopke P, et al. Chemotherapy and post-traumatic stress in the causation of cognitive dysfunction in breast cancer patients. *J Natl Cancer Inst* 2017;109. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28521364>.

128. Treanor CJ, McMenamin UC, O'Neill RF, et al. Non-pharmacological interventions for cognitive impairment due to systemic cancer treatment. *Cochrane Database Syst Rev* 2016:CD011325. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27529826>.

129. Ferguson RJ, McDonald BC, Rocque MA, et al. Development of CBT for chemotherapy-related cognitive change: results of a waitlist control trial. *Psychooncology* 2012;21:176-186. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22271538>.

130. Gehring K, Roukema JA, Sitskoorn MM. Review of recent studies on interventions for cognitive deficits in patients with cancer. *Expert Rev Anticancer Ther* 2012;12:255-269. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22316373>.

131. Hines S, Ramis MA, Pike S, Chang AM. The effectiveness of psychosocial interventions for cognitive dysfunction in cancer patients who have received chemotherapy: a systematic review. *Worldviews Evid Based Nurs* 2014;11:187-193. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24842532>.

132. Bray VJ, Dhillon HM, Bell ML, et al. Evaluation of a web-based cognitive rehabilitation program in cancer survivors reporting cognitive symptoms after chemotherapy. *J Clin Oncol* 2017;35:217-225. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28056205>.

133. Conklin HM, Khan RB, Reddick WE, et al. Acute neurocognitive response to methylphenidate among survivors of childhood cancer: a randomized, double-blind, cross-over trial. *J Pediatr Psychol* 2007;32:1127-1139. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/17569711>.

134. Davis J, Ahlberg FM, Berk M, et al. Emerging pharmacotherapy for cancer patients with cognitive dysfunction. *BMC Neurol* 2013;13:153. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24156319>.

135. Gehring K, Patwardhan SY, Collins R, et al. A randomized trial on the efficacy of methylphenidate and modafinil for improving cognitive functioning and symptoms in patients with a primary brain tumor. *J Neurooncol* 2012;107:165-174. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21964738>.

136. Kohli S, Fisher SG, Tra Y, et al. The effect of modafinil on cognitive function in breast cancer survivors. *Cancer* 2009;115:2605-2616. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/19309747>.

137. Lundorff LE, Jonsson BH, Sjogren P. Modafinil for attentional and psychomotor dysfunction in advanced cancer: a double-blind, randomised, cross-over trial. *Palliat Med* 2009;23:731-738. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/19648224>.

138. Mar Fan HG, Clemons M, Xu W, et al. A randomised, placebo-controlled, double-blind trial of the effects of d-methylphenidate on fatigue and cognitive dysfunction in women undergoing adjuvant chemotherapy for breast cancer. *Support Care Cancer* 2008;16:577-583. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/17972110>.

139. Shaw EG, Rosdhal R, D'Agostino RB, Jr., et al. Phase II study of donepezil in irradiated brain tumor patients: effect on cognitive function, mood, and quality of life. *J Clin Oncol* 2006;24:1415-1420. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/16549835>.

140. Lee SJ, Schover LR, Partridge AH, et al. American Society of Clinical Oncology recommendations on fertility preservation in cancer patients. *J*



# NCCN Guidelines Version 2.2024

## Distress Management

Clin Oncol 2006;24:2917-2931. Available at:  
<http://www.ncbi.nlm.nih.gov/pubmed/16651642>.

141. Carrera PM, Kantarjian HM, Blinder VS. The financial burden and distress of patients with cancer: Understanding and stepping-up action on the financial toxicity of cancer treatment. *CA Cancer J Clin* 2018;68:153-165. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/29338071>.

142. Gordon LG, Merollini KMD, Lowe A, Chan RJ. A systematic review of financial toxicity among cancer survivors: we can't pay the co-pay. *Patient* 2017;10:295-309. Available at:  
<https://www.ncbi.nlm.nih.gov/pubmed/27798816>.

143. Altice CK, Banegas MP, Tucker-Seeley RD, Yabroff KR. Financial hardships experienced by cancer survivors: a systematic review. *J Natl Cancer Inst* 2017;109. Available at:  
<https://www.ncbi.nlm.nih.gov/pubmed/27754926>.

144. Benedict C, Fisher S, Schapira L, et al. Greater financial toxicity relates to greater distress and worse quality of life among breast and gynecologic cancer survivors. *Psychooncology* 2022;31:9-20. Available at:  
<https://www.ncbi.nlm.nih.gov/pubmed/34224603>.

145. Yabroff KR, Dowling EC, Guy GP, Jr., et al. Financial hardship associated with cancer in the United States: findings from a population-based sample of adult cancer survivors. *J Clin Oncol* 2016;34:259-267. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/26644532>.

146. Zheng Z, Jemal A, Han X, et al. Medical financial hardship among cancer survivors in the United States. *Cancer* 2019;125:1737-1747. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/30663039>.

147. Coughlin SS, Ayyala DN, Tinggen MS, Cortes JE. Financial distress among breast cancer survivors. *Curr Cancer Rep* 2020;2:48-53. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/32984842>.

148. Fang P, He W, Gomez D, et al. Racial disparities in guideline-concordant cancer care and mortality in the United States. *Adv Radiat*

*Oncol* 2018;3:221-229. Available at:  
<https://www.ncbi.nlm.nih.gov/pubmed/30202793>.

149. Blom EF, Ten Haaf K, Arenberg DA, de Koning HJ. Disparities in receiving guideline-concordant treatment for lung cancer in the United States. *Ann Am Thorac Soc* 2020;17:186-194. Available at:  
<https://www.ncbi.nlm.nih.gov/pubmed/31672025>.

150. Esnaola NF, Ford ME. Racial differences and disparities in cancer care and outcomes: where's the rub? *Surg Oncol Clin N Am* 2012;21:417-437, viii. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/22583991>.

151. Winkfield KM, Regnante JM, Miller-Sonet E, et al. Development of an actionable framework to address cancer care disparities in medically underserved populations in the United States: expert roundtable recommendations. *JCO Oncol Pract* 2021;17:e278-e293. Available at:  
<https://www.ncbi.nlm.nih.gov/pubmed/33464925>.

152. Ussher JM, Allison K, Perz J, et al. LGBTQI cancer patients' quality of life and distress: a comparison by gender, sexuality, age, cancer type and geographical remoteness. *Front Oncol* 2022;12:873642. Available at:  
<https://www.ncbi.nlm.nih.gov/pubmed/36203463>.

153. Sutton AL, Hagiwara N, Perera RA, Sheppard VB. Assessing perceived discrimination as reported by Black and white women diagnosed with breast cancer. *J Racial Ethn Health Disparities* 2021;8:589-595. Available at:  
<https://www.ncbi.nlm.nih.gov/pubmed/32808196>.

154. Fujimori M, Shirai Y, Asai M, et al. Effect of communication skills training program for oncologists based on patient preferences for communication when receiving bad news: a randomized controlled trial. *J Clin Oncol* 2014;32:2166-2172. Available at:  
<http://www.ncbi.nlm.nih.gov/pubmed/24912901>.

155. Kissane DW, Bylund CL, Banerjee SC, et al. Communication skills training for oncology professionals. *J Clin Oncol* 2012;30:1242-1247. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22412145>.





156. Faller H, Schuler M, Richard M, et al. Effects of psycho-oncologic interventions on emotional distress and quality of life in adult patients with cancer: systematic review and meta-analysis. *J Clin Oncol* 2013;31:782-793. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23319686>.

157. Galway K, Black A, Cantwell M, et al. Psychosocial interventions to improve quality of life and emotional wellbeing for recently diagnosed cancer patients. *Cochrane Database Syst Rev* 2012;11:CD007064. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/23152241>.

158. Matthews H, Grunfeld EA, Turner A. The efficacy of interventions to improve psychosocial outcomes following surgical treatment for breast cancer: a systematic review and meta-analysis. *Psychooncology* 2017;26:593-607. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27333194>.

159. Brebach R, Sharpe L, Costa DS, et al. Psychological intervention targeting distress for cancer patients: a meta-analytic study investigating uptake and adherence. *Psychooncology* 2016;25:882-890. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/26893285>.

160. Stagl JM, Antoni MH, Lechner SC, et al. Randomized controlled trial of cognitive behavioral stress management in breast cancer: a brief report of effects on 5-year depressive symptoms. *Health Psychol* 2015;34:176-180. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25068452>.

161. Stagl JM, Bouchard LC, Lechner SC, et al. Long-term psychological benefits of cognitive-behavioral stress management for women with breast cancer: 11-year follow-up of a randomized controlled trial. *Cancer* 2015;121:1873-1881. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25809235>.

162. Carlson LE, Tamagawa R, Stephen J, et al. Randomized-controlled trial of mindfulness-based cancer recovery versus supportive expressive group therapy among distressed breast cancer survivors (MINDSET): long-term follow-up results. *Psychooncology* 2016;25:750-759. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27193737>.

163. Schellekens MPJ, Tamagawa R, Labelle LE, et al. Mindfulness-based cancer recovery (MBCR) versus supportive expressive group therapy (SET) for distressed breast cancer survivors: evaluating mindfulness and social support as mediators. *J Behav Med* 2017;40:414-422. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27722908>.

164. Schellekens MPJ, van den Hurk DGM, Prins JB, et al. Mindfulness-based stress reduction added to care as usual for lung cancer patients and/or their partners: A multicentre randomized controlled trial. *Psychooncology* 2017;26:2118-2126. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28337821>.

165. Krueger E, Secinti E, Stewart JC, et al. Cognitive-behavioral and mindfulness-based interventions for distress in patients with advanced cancer: a meta-analysis. *Psychooncology* 2024;33:e6259. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/38054530>.

166. Jassim GA, Whitford DL, Hickey A, Carter B. Psychological interventions for women with non-metastatic breast cancer. *Cochrane Database Syst Rev* 2015;5:CD008729. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/26017383>.

167. Beatty L, Koczwara B, Wade T. Evaluating the efficacy of a self-guided Web-based CBT intervention for reducing cancer-distress: a randomised controlled trial. *Support Care Cancer* 2016;24:1043-1051. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/26248651>.

168. Cillessen L, Schellekens MPJ, Van de Ven MOM, et al. Consolidation and prediction of long-term treatment effect of group and online mindfulness-based cognitive therapy for distressed cancer patients. *Acta Oncol* 2018;57:1293-1302. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/29932784>.

169. Ekers D, Webster L, Van Straten A, et al. Behavioural activation for depression; an update of meta-analysis of effectiveness and sub group analysis. *PLoS One* 2014;9:e100100. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/24936656>.





170. Hirayama T, Ogawa Y, Yanai Y, et al. Behavioral activation therapy for depression and anxiety in cancer patients: a case series study. *Biopsychosoc Med* 2019;13:9. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/31168316>.

171. Hopko DR, Funderburk JS, Shorey RC, et al. Behavioral activation and problem-solving therapy for depressed breast cancer patients: preliminary support for decreased suicidal ideation. *Behav Modif* 2013;37:747-767. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/23990646>.

172. Blanco C, Markowitz JC, Hellerstein DJ, et al. A randomized trial of interpersonal psychotherapy, problem solving therapy, and supportive therapy for major depressive disorder in women with breast cancer. *Breast Cancer Res Treat* 2019;173:353-364. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/30343455>.

173. Balck F, Zscheschang A, Zimmermann A, Ordemann R. A randomized controlled trial of problem-solving training (PST) for hematopoietic stem cell transplant (HSCT) patients: Effects on anxiety, depression, distress, coping and pain. *J Psychosoc Oncol* 2019;37:541-556. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/31304890>.

174. Breitbart W, Poppito S, Rosenfeld B, et al. Pilot randomized controlled trial of individual meaning-centered psychotherapy for patients with advanced cancer. *J Clin Oncol* 2012;30:1304-1309. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22370330>.

175. Breitbart W, Rosenfeld B, Pessin H, et al. Meaning-centered group psychotherapy: an effective intervention for improving psychological well-being in patients with advanced cancer. *J Clin Oncol* 2015;33:749-754. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25646186>.

176. Breitbart W, Pessin H, Rosenfeld B, et al. Individual meaning-centered psychotherapy for the treatment of psychological and existential distress: A randomized controlled trial in patients with advanced cancer. *Cancer* 2018;124:3231-3239. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/29757459>.

177. Xiao J, Chow KM, Liu Y, Chan CWH. Effects of dignity therapy on dignity, psychological well-being, and quality of life among palliative care cancer patients: a systematic review and meta-analysis. *Psychooncology* 2019;28:1791-1802. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/31243850>.

178. Kupeli N, Chatzitheodorou G, Troop NA, et al. Expressive writing as a therapeutic intervention for people with advanced disease: a systematic review. *BMC Palliat Care* 2019;18:65. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/31375118>.

179. McCaughan E, Parahoo K, Hueter I, et al. Online support groups for women with breast cancer. *Cochrane Database Syst Rev* 2017;3:CD011652. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28278559>.

180. Lepore SJ, Buzaglo JS, Lieberman MA, et al. Comparing standard versus prosocial internet support groups for patients with breast cancer: a randomized controlled trial of the helper therapy principle. *J Clin Oncol* 2014;32:4081-4086. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25403218>.

181. Hu J, Wang X, Guo S, et al. Peer support interventions for breast cancer patients: a systematic review. *Breast Cancer Res Treat* 2019;174:325-341. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/30600413>.

182. Chambers SK, Girgis A, Occhipinti S, et al. A randomized trial comparing two low-intensity psychological interventions for distressed patients with cancer and their caregivers. *Oncol Nurs Forum* 2014;41:E256-266. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24969260>.

183. van den Berg SW, Gielissen MF, Ottevanger PB, Prins JB. Rationale of the BREast cancer e-healTH [BREATH] multicentre randomised controlled trial: an internet-based self-management intervention to foster adjustment after curative breast cancer by decreasing distress and increasing empowerment. *BMC Cancer* 2012;12:394. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22958799>.



184. Chow KM, Chan JC, Choi KK, Chan CW. A review of psychoeducational interventions to improve sexual functioning, quality of life, and psychological outcomes in gynecological cancer patients. *Cancer Nurs* 2016;39:20-31. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/25730595>.

185. Rollnick S, Miller WR. What is motivational interviewing? *Behavioural and Cognitive Psychotherapy* 2009;23:325-334. Available at:

<https://psycnet.apa.org/record/1998-04654-001>.

186. Spencer JC, Wheeler SB. A systematic review of motivational interviewing interventions in cancer patients and survivors. *Patient Educ Couns* 2016;99:1099-1105. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/26879805>.

187. Fann JR, Hong F, Halpenny B, et al. Psychosocial outcomes of an electronic self-report assessment and self-care intervention for patients with cancer: a randomized controlled trial. *Psychooncology* 2017;26:1866-1871. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27530529>.

188. Urech C, Grossert A, Alder J, et al. Web-based stress management for newly diagnosed patients with cancer (STREAM): a randomized, wait-list controlled intervention study. *J Clin Oncol* 2018;36:780-788. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/29369731>.

189. Manne SL, Ostroff JS, Norton TR, et al. Cancer-related relationship communication in couples coping with early stage breast cancer. *Psychooncology* 2006;15:234-247. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/15926198>.

190. Hu Y, Liu T, Li F. Association between dyadic interventions and outcomes in cancer patients: a meta-analysis. *Support Care Cancer* 2019;27:745-761. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/30604008>.

191. Wang F, Luo D, Fu L, et al. The efficacy of couple-based interventions on health-related quality of life in cancer patients and their spouses: a meta-analysis of 12 randomized controlled trials. *Cancer Nurs*

2017;40:39-47. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/26925996>.

192. Regan TW, Lambert SD, Girgis A, et al. Do couple-based interventions make a difference for couples affected by cancer?: a systematic review. *BMC Cancer* 2012;12:279. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/22769228>.

193. Brandao T, Schulz MS, Matos PM. Psychological intervention with couples coping with breast cancer: a systematic review. *Psychol Health* 2014;29:491-516. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/24279379>.

194. Kleine AK, Hallensleben N, Mehnert A, et al. Psychological interventions targeting partners of cancer patients: a systematic review. *Crit Rev Oncol Hematol* 2019;140:52-66. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/31176272>.

195. Ahn S, Romo RD, Campbell CL. A systematic review of interventions for family caregivers who care for patients with advanced cancer at home. *Patient Educ Couns* 2020;103:1518-1530. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/32201172>.

196. Ng CG, Boks MP, Zainal NZ, de Wit NJ. The prevalence and pharmacotherapy of depression in cancer patients. *J Affect Disord* 2011;131:1-7. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/20732716>.

197. Pirl WF. Evidence report on the occurrence, assessment, and treatment of depression in cancer patients. *J Natl Cancer Inst Monogr* 2004;32-39. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/15263039>.

198. Rayner L, Price A, Evans A, et al. Antidepressants for depression in physically ill people. *Cochrane Database Syst Rev* 2010;3:CD007503. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/20238354>.

199. Rayner L, Price A, Evans A, et al. Antidepressants for the treatment of depression in palliative care: systematic review and meta-analysis.



Palliat Med 2010;25:36-51. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/20935027>.

200. Williams S, Dale J. The effectiveness of treatment for depression/depressive symptoms in adults with cancer: a systematic review. Br J Cancer 2006;94:372-390. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/16465173>.

201. Fisch MJ, Loehrer PJ, Kristeller J, et al. Fluoxetine versus placebo in advanced cancer outpatients: a double-blinded trial of the Hoosier Oncology Group. J Clin Oncol 2003;21:1937-1943. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/12743146>.

202. Holland JC, Romano SJ, Heiligenstein JH, et al. A controlled trial of fluoxetine and desipramine in depressed women with advanced cancer. Psychooncology 1998;7:291-300. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/9741068>.

203. Vaidya R, Sood R, Karlin N, Jatoi A. Benzodiazepine use in breast cancer survivors: findings from a consecutive series of 1,000 patients. Oncology 2011;81:9-11. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/21894050>.

204. Greenberg DB. Strategic use of benzodiazepines in cancer patients. Oncology (Williston Park) 1991;5:83-88; discussion 88, 90, 95. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/1831042>.

205. Sicouri S, Antzelevitch C. Mechanisms underlying the actions of antidepressant and antipsychotic drugs that cause sudden cardiac arrest. Arrhythm Electrophysiol Rev 2018;7:199-209. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/30416734>.

206. Vantaggiato C, Panzeri E, Citterio A, et al. Antipsychotics promote metabolic disorders disrupting cellular lipid metabolism and trafficking. Trends Endocrinol Metab 2019;30:189-210. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/30718115>.

207. Ferrer RA, Huedo-Medina TB, Johnson BT, et al. Exercise interventions for cancer survivors: a meta-analysis of quality of life

outcomes. Ann Behav Med 2011;41:32-47. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/20931309>.

208. Rock CL, Doyle C, Demark-Wahnefried W, et al. Nutrition and physical activity guidelines for cancer survivors. CA Cancer J Clin 2012;62:243-274. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/22539238>.

209. Schmitz KH, Courneya KS, Matthews C, et al. American College of Sports Medicine roundtable on exercise guidelines for cancer survivors. Med Sci Sports Exerc 2010;42:1409-1426. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/20559064>.

210. Fuller JT, Hartland MC, Maloney LT, Davison K. Therapeutic effects of aerobic and resistance exercises for cancer survivors: a systematic review of meta-analyses of clinical trials. Br J Sports Med 2018;52:1311. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/29549149>.

211. Fong DY, Ho JW, Hui BP, et al. Physical activity for cancer survivors: meta-analysis of randomised controlled trials. BMJ 2012;344:e70. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/22294757>.

212. Mishra SI, Scherer RW, Geigle PM, et al. Exercise interventions on health-related quality of life for cancer survivors. Cochrane Database Syst Rev 2012:CD007566. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/22895961>.

213. Bergenthal N, Will A, Streckmann F, et al. Aerobic physical exercise for adult patients with haematological malignancies. Cochrane Database Syst Rev 2014;11:CD009075. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/25386666>.

214. Knips L, Bergenthal N, Streckmann F, et al. Aerobic physical exercise for adult patients with haematological malignancies. Cochrane Database Syst Rev 2019;1:CD009075. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/30702150>.

215. Bekhet AH, Abdallah AR, Ismail HM, et al. Benefits of aerobic exercise for breast cancer survivors: a systematic review of randomized



controlled trials. *Asian Pac J Cancer Prev* 2019;20:3197-3209. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/31759342>.

216. Zeng J, Wu J, Tang C, et al. Effects of exercise during or postchemotherapy in cancer patients: a systematic review and meta-analysis. *Worldviews Evid Based Nurs* 2019;16:92-101. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/30854763>.

217. Puetz TW, Herring MP. Differential effects of exercise on cancer-related fatigue during and following treatment: a meta-analysis. *Am J Prev Med* 2012;43:e1-24. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22813691>.

218. Tomlinson D, Diorio C, Beyene J, Sung L. Effect of exercise on cancer-related fatigue: a meta-analysis. *Am J Phys Med Rehabil* 2014;93:675-686. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24743466>.

219. Greenlee H, Balneaves LG, Carlson LE, et al. Clinical practice guidelines on the use of integrative therapies as supportive care in patients treated for breast cancer. *J Natl Cancer Inst Monogr* 2014;2014:346-358. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25749602>.

220. Greenlee H, DuPont-Reyes MJ, Balneaves LG, et al. Clinical practice guidelines on the evidence-based use of integrative therapies during and after breast cancer treatment. *CA Cancer J Clin* 2017;67:194-232. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28436999>.

221. Bradt J, Dileo C, Myers-Coffman K, Biondo J. Music interventions for improving psychological and physical outcomes in people with cancer. *Cochrane Database Syst Rev* 2021;10:CD006911. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/34637527>.

222. Pan Y, Yang K, Wang Y, et al. Could yoga practice improve treatment-related side effects and quality of life for women with breast cancer? A systematic review and meta-analysis. *Asia Pac J Clin Oncol* 2017;13:e79-e95. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25560636>.

223. Gonzalez M, Pascoe MC, Yang G, et al. Yoga for depression and anxiety symptoms in people with cancer: a systematic review and meta-analysis. *Psychooncology* 2021;30:1196-1208. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/33763925>.

224. Cramer H, Lauche R, Klose P, et al. Yoga for improving health-related quality of life, mental health and cancer-related symptoms in women diagnosed with breast cancer. *Cochrane Database Syst Rev* 2017;1:CD010802. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28045199>.

225. Danhauer SC, Addington EL, Cohen L, et al. Yoga for symptom management in oncology: A review of the evidence base and future directions for research. *Cancer* 2019;125:1979-1989. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/30933317>.

226. Carlson LE, Ismaila N, Addington EL, et al. Integrative oncology care of symptoms of anxiety and depression in adults with cancer: Society for Integrative Oncology-ASCO guideline. *J Clin Oncol* 2023;41:4562-4591. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/37582238>.

227. Xunlin NG, Lau Y, Klainin-Yobas P. The effectiveness of mindfulness-based interventions among cancer patients and survivors: a systematic review and meta-analysis. *Support Care Cancer* 2020;28:1563-1578. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/31834518>.

228. Oberoi S, Yang J, Woodgate RL, et al. Association of mindfulness-based interventions with anxiety severity in adults with cancer: a systematic review and meta-analysis. *JAMA Netw Open* 2020;3:e2012598. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/32766801>.

229. Zhang Q, Zhao H, Zheng Y. Effectiveness of mindfulness-based stress reduction (MBSR) on symptom variables and health-related quality of life in breast cancer patients—a systematic review and meta-analysis. *Support Care Cancer* 2019;27:771-781. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/30488223>.





# NCCN Guidelines Version 2.2024

## Distress Management

230. Cillessen L, Johannsen M, Speckens AEM, Zachariae R. Mindfulness-based interventions for psychological and physical health outcomes in cancer patients and survivors: A systematic review and meta-analysis of randomized controlled trials. *Psychooncology* 2019;28:2257-2269. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/31464026>.

231. Haller H, Winkler MM, Klose P, et al. Mindfulness-based interventions for women with breast cancer: an updated systematic review and meta-analysis. *Acta Oncol* 2017;56:1665-1676. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28686520>.

232. Schell LK, Monsef I, Wockel A, Skoetz N. Mindfulness-based stress reduction for women diagnosed with breast cancer. *Cochrane Database Syst Rev* 2019;3:CD011518. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/30916356>.

233. Grassi L, Nanni MG. Demoralization syndrome: new insights in psychosocial cancer care. *Cancer* 2016;122:2130-2133. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27171755>.

234. Robinson S, Kissane DW, Brooker J, Burney S. A systematic review of the demoralization syndrome in individuals with progressive disease and cancer: a decade of research. *J Pain Symptom Manage* 2015;49:595-610. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25131888>.

235. Weinstein LC, Stefancic A, Cunningham AT, et al. Cancer screening, prevention, and treatment in people with mental illness. *CA Cancer J Clin* 2016;66:134-151. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/26663383>.

236. Iglay K, Santorelli ML, Hirshfield KM, et al. Impact of preexisting mental illness on all-cause and breast cancer-specific mortality in elderly patients with breast cancer. *J Clin Oncol* 2017;35:4012-4018. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28934000>.

237. Hemmington A, Huang D, Coomarasamy C, et al. When mental illness and cancer collide: an investigation of the predictors of outcomes for cancer patients with a history of mental health problems.

*Psychooncology* 2020;29:525-531. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/31742811>.

238. Wootten JC, Richard L, Blanchette PS, et al. Cancer incidence and stage at diagnosis among people with recent-onset psychotic disorders: a retrospective cohort study using health administrative data from Ontario, Canada. *Psychooncology* 2022;31:1510-1518. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/35726378>.

239. Ashley L, Surr C, Kelley R, et al. Cancer care for people with dementia: literature overview and recommendations for practice and research. *CA Cancer J Clin* 2023;73:320-338. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/36512303>.

240. Kisely S, Alotiby MKN, Protani MM, et al. Breast cancer treatment disparities in patients with severe mental illness: a systematic review and meta-analysis. *Psychooncology* 2023;32:651-662. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/36892099>.

241. Bentson TM, Floe LE, Bruun JM, et al. Barriers in cancer trajectories of patients with pre-existing severe mental disorders- a systematic review. *Psychooncology* 2023;32:862-874. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/37076979>.

242. Wang YH, Aggarwal A, Stewart R, Davies EA. Impact of pre-existing mental health disorders on the receipt of guideline recommended cancer treatments: a systematic review. *Psychooncology* 2023;32:307-330. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/36588188>.

243. Association AP. *Diagnostic and Statistical Manual of Mental Disorders* (ed 5th, text rev). Arlington, VA: American Psychiatric Association; 2022.

244. Holland JC, Golant M, Greenberg DB, et al., eds. *Psycho-Oncology: A quick reference on the psychosocial dimensions of cancer symptom management*. In: APOS, ed. *APOS Clinical Reference Handbooks* (ed 2): Oxford University Press; 2015.





# NCCN Guidelines Version 2.2024

## Distress Management

245. Breitbart WS, Butow PN, Jacobsen PB, et al., eds. *Psycho-Oncology* (ed 4): Oxford University Press; 2021.

246. Holland JC, Weiss Wiesel T, Nelson CJ, et al., eds. *Geriatric Psycho-Oncology: A quick reference on the psychosocial dimensions of cancer symptom management*. In: APOS, ed. *APOS Clinical Reference Handbooks* (ed 1): Oxford University Press; 2015.

247. Wiener LS, Pao M, Kazak AE, et al., eds. *Pediatric Psycho-Oncology: A quick reference on the psychosocial dimensions of cancer symptom management* (ed 2): Oxford University Press; 2015.

248. Legler A, Bradley EH, Carlson MD. The effect of comorbidity burden on health care utilization for patients with cancer using hospice. *J Palliat Med* 2011;14:751-756. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21548813>.

249. Raji MA, Kuo YF, Freeman JL, Goodwin JS. Effect of a dementia diagnosis on survival of older patients after a diagnosis of breast, colon, or prostate cancer: implications for cancer care. *Arch Intern Med* 2008;168:2033-2040. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/18852406>.

250. Hopkinson JB, Milton R, King A, Edwards D. People with dementia: what is known about their experience of cancer treatment and cancer treatment outcomes? A systematic review. *Psychooncology* 2016;25:1137-1146. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27246507>.

251. Watt CL, Momoli F, Ansari MT, et al. The incidence and prevalence of delirium across palliative care settings: a systematic review. *Palliat Med* 2019;33:865-877. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/31184538>.

252. Bush SH, Lawlor PG, Ryan K, et al. Delirium in adult cancer patients: ESMO Clinical Practice Guidelines. *Ann Oncol* 2018;29 Suppl 4:iv143-iv165. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/32169223>.

253. Marcantonio ER, Juarez G, Goldman L, et al. The relationship of postoperative delirium with psychoactive medications. *JAMA* 1994;272:1518-1522. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/7966844>.

254. Elsayem AF, Bruera E, Valentine AD, et al. Delirium frequency among advanced cancer patients presenting to an emergency department: A prospective, randomized, observational study. *Cancer* 2016;122:2918-2924. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27455035>.

255. Elsayem AF, Bruera E, Valentine A, et al. Advance directives, hospitalization, and survival among advanced cancer patients with delirium presenting to the emergency department: a prospective study. *Oncologist* 2017;22:1368-1373. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28765503>.

256. de la Cruz M, Fan J, Yennu S, et al. The frequency of missed delirium in patients referred to palliative care in a comprehensive cancer center. *Support Care Cancer* 2015;23:2427-2433. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/25617070>.

257. Dy SM, Apostol CC. Evidence-based approaches to other symptoms in advanced cancer. *Cancer J* 2010;16:507-513. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/20890148>.

258. Hui D, De La Rosa A, Wilson A, et al. Neuroleptic strategies for terminal agitation in patients with cancer and delirium at an acute palliative care unit: a single-centre, double-blind, parallel-group, randomised trial. *Lancet Oncol* 2020;21:989-998. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/32479786>.

259. Breitbart W, Alici Y. Evidence-based treatment of delirium in patients with cancer. *J Clin Oncol* 2012;30:1206-1214. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22412123>.

260. Boyes AW, Girgis A, D'Este CA, et al. Prevalence and predictors of the short-term trajectory of anxiety and depression in the first year after a cancer diagnosis: a population-based longitudinal study. *J Clin Oncol*



# NCCN Guidelines Version 2.2024

## Distress Management

2013;31:2724-2729. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/23775970>.

261. Walker J, Holm Hansen C, Martin P, et al. Prevalence of depression in adults with cancer: a systematic review. *Ann Oncol* 2013;24:895-900.

Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23175625>.

262. Caruso R, Nanni MG, Riba M, et al. Depressive spectrum disorders in cancer: prevalence, risk factors and screening for depression: a critical review. *Acta Oncol* 2017;56:146-155. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/28140731>.

263. Dinh KT, Reznor G, Muralidhar V, et al. Association of androgen deprivation therapy with depression in localized prostate cancer. *J Clin Oncol* 2016;34:1905-1912. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/27069075>.

264. Mehnert A, Braehler E, Faller H, et al. Four-week prevalence of mental disorders in patients with cancer across major tumor entities. *J Clin Oncol* 2014;32:3540-3546. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/25287821>.

265. Avis NE, Levine BJ, Case LD, et al. Trajectories of depressive symptoms following breast cancer diagnosis. *Cancer Epidemiol Biomarkers Prev* 2015;24:1789-1795. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/26377192>.

266. Kim SA, Roh JL, Lee SA, et al. Pretreatment depression as a prognostic indicator of survival and nutritional status in patients with head and neck cancer. *Cancer* 2016;122:131-140. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/26371775>.

267. Kanani R, Davies EA, Hanchett N, Jack RH. The association of mood disorders with breast cancer survival: an investigation of linked cancer registration and hospital admission data for South East England. *Psychooncology* 2016;25:19-27. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/26619290>.

268. Barber B, Dergousoff J, Slater L, et al. Depression and survival in patients with head and neck cancer: a systematic review. *JAMA Otolaryngol Head Neck Surg* 2016;142:284-288. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/26796781>.

269. Leung YW, Li M, Devins G, et al. Routine screening for suicidal intention in patients with cancer. *Psychooncology* 2013;22:2537-2545.

Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23878040>.

270. Miller M, Mogun H, Azrael D, et al. Cancer and the risk of suicide in older Americans. *J Clin Oncol* 2008;26:4720-4724. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/18695256>.

271. Misono S, Weiss NS, Fann JR, et al. Incidence of suicide in persons with cancer. *J Clin Oncol* 2008;26:4731-4738. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/18695257>.

272. Walker J, Waters RA, Murray G, et al. Better off dead: suicidal thoughts in cancer patients. *J Clin Oncol* 2008;26:4725-4730. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/18695258>.

273. Kinslow CJ, Kumar P, Olfson M, et al. Prognosis and risk of suicide after cancer diagnosis. *Cancer* 2024;130:588-596. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/38018695>.

274. Kendal W. Suicide and cancer: a gender-comparative study. *Annals of Oncology* 2007;18:381-387. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/17053045>.

275. Jayakrishnan TT, Sekigami Y, Rajeev R, et al. Morbidity of curative cancer surgery and suicide risk. *Psychooncology* 2017;26:1792-1798.

Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27421798>.

276. Zaorsky NG, Zhang Y, Tuanquin L, et al. Suicide among cancer patients. *Nat Commun* 2019;10:207. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/30643135>.

277. Klaassen Z, Wallis CJD, Chandrasekar T, et al. Cancer diagnosis and risk of suicide after accounting for prediagnosis psychiatric care: A



matched-cohort study of patients with incident solid-organ malignancies. *Cancer* 2019;125:2886-2895. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/31021430>.

278. Hu X, Ma J, Jemal A, et al. Suicide risk among individuals diagnosed with cancer in the US, 2000-2016. *JAMA Netw Open* 2023;6:e2251863. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/36662522>.

279. Potter AL, Haridas C, Neumann K, et al. Incidence, timing, and factors associated with suicide among patients undergoing surgery for cancer in the US. *JAMA Oncol* 2023;9:308-315. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/36633854>.

280. Gaitanidis A, Alevizakos M, Pitiakoudis M, Wiggins D. Trends in incidence and associated risk factors of suicide mortality among breast cancer patients. *Psychooncology* 2018;27:1450-1456. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/29055289>.

281. Pham TT, Talukder AM, Walsh NJ, et al. Clinical and epidemiological factors associated with suicide in colorectal cancer. *Support Care Cancer* 2019;27:617-621. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/30027329>.

282. Oakley C, Hynes F, Clark T. Mood disorders and violence: a new focus. *Advances in Psychiatric Treatment* 2009;15:263-270. Available at:

<https://www.cambridge.org/core/journals/advances-in-psychiatric-treatment/article/mood-disorders-and-violence-a-new-focus/167E6DCDFBDCCE1711E7FFE4829269E4>.

283. Carvalho AF, Hyphantis T, Sales PM, et al. Major depressive disorder in breast cancer: a critical systematic review of pharmacological and psychotherapeutic clinical trials. *Cancer Treat Rev* 2014;40:349-355. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/24084477>.

284. Hart SL, Hoyt MA, Diefenbach M, et al. Meta-analysis of efficacy of interventions for elevated depressive symptoms in adults diagnosed with cancer. *J Natl Cancer Inst* 2012;104:990-1004. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/22767203>.

285. Walker J, Sawhney A, Hansen CH, et al. Treatment of depression in adults with cancer: a systematic review of randomized controlled trials. *Psychol Med* 2014;44:897-907. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/23778105>.

286. Ostuzzi G, Benda L, Costa E, Barbui C. Efficacy and acceptability of antidepressants on the continuum of depressive experiences in patients with cancer: Systematic review and meta-analysis. *Cancer Treat Rev* 2015;41:714-724. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/26118318>.

287. Okuyama T, Akechi T, Mackenzie L, Furukawa TA. Psychotherapy for depression among advanced, incurable cancer patients: A systematic review and meta-analysis. *Cancer Treat Rev* 2017;56:16-27. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/28453966>.

288. Li M, Kennedy EB, Byrne N, et al. Systematic review and meta-analysis of collaborative care interventions for depression in patients with cancer. *Psychooncology* 2017;26:573-587. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/27643388>.

289. Grassi L, Nanni MG, Rodin G, et al. The use of antidepressants in oncology: a review and practical tips for oncologists. *Ann Oncol* 2018;29:101-111. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/29272358>.

290. Ostuzzi G, Matcham F, Dauchy S, et al. Antidepressants for the treatment of depression in people with cancer. *Cochrane Database Syst Rev* 2018;4:CD011006. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/29683474>.

291. Sullivan DR, Mongoue-Tchokote S, Mori M, et al. Randomized, double-blind, placebo-controlled study of methylphenidate for the treatment of depression in SSRI-treated cancer patients receiving palliative care. *Psychooncology* 2017;26:1763-1769. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/27429350>.

292. Coutino-Escamilla L, Pina-Pozas M, Tobias Garces A, et al. Non-pharmacological therapies for depressive symptoms in breast cancer



patients: systematic review and meta-analysis of randomized clinical trials. *Breast* 2019;44:135-143. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/30776733>.

293. Vita G, Compri B, Matcham F, et al. Antidepressants for the treatment of depression in people with cancer. *Cochrane Database Syst Rev* 2023;3:CD011006. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/36999619>.

294. Agboola SO, Ju W, Elfiky A, et al. The effect of technology-based interventions on pain, depression, and quality of life in patients with cancer: a systematic review of randomized controlled trials. *J Med Internet Res* 2015;17:e65. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/25793945>.

295. Gazdag G, Ungvari GS. Non-pharmacological biological therapies in schizophrenia. *Neuropsychopharmacol Hung* 2011;13:233-238. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22184192>.

296. Greenhalgh J, Knight C, Hind D, et al. Clinical and cost-effectiveness of electroconvulsive therapy for depressive illness, schizophrenia, catatonia and mania: systematic reviews and economic modelling studies. *Health Technol Assess* 2005;9:1-156, iii-iv. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/15774232>.

297. Tharyan P, Adams CE. Electroconvulsive therapy for schizophrenia. *Cochrane Database Syst Rev* 2005:CD000076. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/15846598>.

298. Zervas IM, Theleritis C, Soldatos CR. Using ECT in schizophrenia: a review from a clinical perspective. *World J Biol Psychiatry* 2012;13:96-105. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21486108>.

299. Beale MD, Kellner CH, Parsons PJ. ECT for the treatment of mood disorders in cancer patients. *Convuls Ther* 1997;13:222-226. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/9437566>.

300. Kaestner F, Mostert C, Behnken A, et al. Therapeutic strategies for catatonia in paraneoplastic encephalitis. *World J Biol Psychiatry*

2008;9:236-240. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/17853266>.

301. Kohler CG, Burock M. ECT for psychotic depression associated with a brain tumor. *Am J Psychiatry* 2001;158:2089. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/11729041>.

302. Andersen BL, DeRubeis RJ, Berman BS, et al. Screening, assessment, and care of anxiety and depressive symptoms in adults with cancer: an american society of clinical oncology guideline adaptation. *J Clin Oncol* 2014;32:1605-1619. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/24733793>.

303. Kenna HA, Poon AW, de los Angeles CP, Koran LM. Psychiatric complications of treatment with corticosteroids: review with case report. *Psychiatry Clin Neurosci* 2011;65:549-560. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/22003987>.

304. Sirois F. Steroid psychosis: a review. *Gen Hosp Psychiatry* 2003;25:27-33. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/12583925>.

305. Stark D, Kiely M, Smith A, et al. Anxiety disorders in cancer patients: their nature, associations, and relation to quality of life. *J Clin Oncol* 2002;20:3137-3148. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/12118028>.

306. Rasic DT, Belik SL, Bolton JM, et al. Cancer, mental disorders, suicidal ideation and attempts in a large community sample. *Psychooncology* 2008;17:660-667. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/18050260>.

307. Akechi T, Okuyama T, Sagawa R, et al. Social anxiety disorder as a hidden psychiatric comorbidity among cancer patients. *Palliat Support Care* 2011;9:103-105. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/21352622>.





308. Traeger L, Greer JA, Fernandez-Robles C, et al. Evidence-based treatment of anxiety in patients with cancer. *J Clin Oncol* 2012;30:1197-1205. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22412135>.

309. Ford JS, Chou JF, Sklar CA, et al. Psychosocial outcomes in adult survivors of retinoblastoma. *J Clin Oncol* 2015;33:3608-3614. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/26417002>.

310. Chan CMH, Ng CG, Taib NA, et al. Course and predictors of post-traumatic stress disorder in a cohort of psychologically distressed patients with cancer: A 4-year follow-up study. *Cancer* 2018;124:406-416. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/29152719>.

311. Stuber ML, Meeske KA, Krull KR, et al. Prevalence and predictors of posttraumatic stress disorder in adult survivors of childhood cancer. *Pediatrics* 2010;125:e1124-1134. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/20435702>.

312. Kangas M. DSM-5 trauma and stress-related disorders: implications for screening for cancer-related stress. *Front Psychiatry* 2013;4:122. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/24106482>.

313. Cordova MJ, Riba MB, Spiegel D. Post-traumatic stress disorder and cancer. *Lancet Psychiatry* 2017;4:330-338. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28109647>.

314. Swartzman S, Booth JN, Munro A, Sani F. Posttraumatic stress disorder after cancer diagnosis in adults: A meta-analysis. *Depress Anxiety* 2017;34:327-339. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/27466972>.

315. Abbey G, Thompson SB, Hickish T, Heathcote D. A meta-analysis of prevalence rates and moderating factors for cancer-related post-traumatic stress disorder. *Psychooncology* 2015;24:371-381. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25146298>.

316. Fortin J, Leblanc M, Elgbeili G, et al. The mental health impacts of receiving a breast cancer diagnosis: a meta-analysis. *Br J Cancer*

2021;125:1582-1592. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/34482373>.

317. Smith SK, Zimmerman S, Williams CS, et al. Post-traumatic stress symptoms in long-term non-Hodgkin's lymphoma survivors: does time heal? *J Clin Oncol* 2011;29:4526-4533. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/21990412>.

318. Shelby RA, Golden-Kreutz DM, Andersen BL. PTSD diagnoses, subsyndromal symptoms, and comorbidities contribute to impairments for breast cancer survivors. *J Trauma Stress* 2008;21:165-172. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/18404636>.

319. Kangas M, Henry JL, Bryant RA. Predictors of posttraumatic stress disorder following cancer. *Health Psychol* 2005;24:579-585. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/16287403>.

320. Green BL, Krupnick JL, Rowland JH, et al. Trauma history as a predictor of psychologic symptoms in women with breast cancer. *J Clin Oncol* 2000;18:1084-1093. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/10694561>.

321. Wachen JS, Patidar SM, Mulligan EA, et al. Cancer-related PTSD symptoms in a veteran sample: association with age, combat PTSD, and quality of life. *Psychooncology* 2014;23:921-927. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/24519893>.

322. Butler LD, Koopman C, Classen C, Spiegel D. Traumatic stress, life events, and emotional support in women with metastatic breast cancer: cancer-related traumatic stress symptoms associated with past and current stressors. *Health Psychol* 1999;18:555-560. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/10619528>.

323. Koopman C, Butler LD, Classen C, et al. Traumatic stress symptoms among women with recently diagnosed primary breast cancer. *J Trauma Stress* 2002;15:277-287. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/12224799>.





# NCCN Guidelines Version 2.2024

## Distress Management

324. Jacobsen PB, Sadler IJ, Booth-Jones M, et al. Predictors of posttraumatic stress disorder symptomatology following bone marrow transplantation for cancer. *J Consult Clin Psychol* 2002;70:235-240. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/11860050>.

325. Kangas M, Henry JL, Bryant RA. The course of psychological disorders in the 1st year after cancer diagnosis. *J Consult Clin Psychol* 2005;73:763-768. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/16173866>.

326. Han WT, Collie K, Koopman C, et al. Breast cancer and problems with medical interactions: relationships with traumatic stress, emotional self-efficacy, and social support. *Psychooncology* 2005;14:318-330. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/15386762>.

327. Arnaboldi P, Riva S, Crico C, Pravettoni G. A systematic literature review exploring the prevalence of post-traumatic stress disorder and the role played by stress and traumatic stress in breast cancer diagnosis and trajectory. *Breast Cancer* (Dove Med Press) 2017;9:473-485. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28740430>.

328. Koutrouli N, Anagnostopoulos F, Potamianos G. Posttraumatic stress disorder and posttraumatic growth in breast cancer patients: a systematic review. *Women Health* 2012;52:503-516. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/22747186>.

329. Mehnert A, Lehmann C, Graefen M, et al. Depression, anxiety, post-traumatic stress disorder and health-related quality of life and its association with social support in ambulatory prostate cancer patients. *Eur J Cancer Care (Engl)* 2010;19:736-745. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/19832893>.

330. Shand LK, Cowlshaw S, Brooker JE, et al. Correlates of post-traumatic stress symptoms and growth in cancer patients: a systematic review and meta-analysis. *Psychooncology* 2015;24:624-634. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25393527>.

331. Andrykowski MA, Steffens RF, Bush HM, Tucker TC. Lung cancer diagnosis and treatment as a traumatic stressor in DSM-IV and DSM-5:

prevalence and relationship to mental health outcomes. *J Trauma Stress* 2015;28:206-213. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25990718>.

332. Springer F, Friedrich M, Kuba K, et al. New progress in an old debate? Applying the DSM-5 criteria to assess traumatic events and stressor-related disorders in cancer survivors. *Psychooncology* 2023;32:1616-1624. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/37695318>.

333. Recklitis CJ, Michaud A, Blackmon JE, et al. Evaluating posttraumatic stress in young adult cancer survivors: implications of revised DSM-5 traumatic event criteria. *Psychooncology* 2023;32:895-903. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/36973915>.

334. Goebel S, Strenge H, Mehdorn HM. Acute stress in patients with brain cancer during primary care. *Support Care Cancer* 2012;20:1425-1434. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21717272>.

335. Kangas M, Henry JL, Bryant RA. Correlates of acute stress disorder in cancer patients. *J Trauma Stress* 2007;20:325-334. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/17598136>.

336. Rodin G, Deckert A, Tong E, et al. Traumatic stress in patients with acute leukemia: A prospective cohort study. *Psychooncology* 2018;27:515-523. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28665521>.

337. Kangas M, Henry JL, Bryant RA. The relationship between acute stress disorder and posttraumatic stress disorder following cancer. *J Consult Clin Psychol* 2005;73:360-364. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/15796646>.

338. Mitchell AJ, Chan M, Bhatti H, et al. Prevalence of depression, anxiety, and adjustment disorder in oncological, haematological, and palliative-care settings: a meta-analysis of 94 interview-based studies. *Lancet Oncol* 2011;12:160-174. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21251875>.



# NCCN Guidelines Version 2.2024

## Distress Management

339. Van Beek FE, Wijnhoven LMA, Custers JAE, et al. Adjustment disorder in cancer patients after treatment: prevalence and acceptance of psychological treatment. *Support Care Cancer* 2022;30:1797-1806. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/34599663>.

340. Meyer F, Block S. Personality disorders in the oncology setting. *J Support Oncol* 2011;9:44-51. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21542408>.

341. Skinner EA, Edge K, Altman J, Sherwood H. Searching for the structure of coping: a review and critique of category systems for classifying ways of coping. *Psychol Bull* 2003;129:216-269. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/12696840>.

342. Salsman JM, Pustejovsky JE, Jim HS, et al. A meta-analytic approach to examining the correlation between religion/spirituality and mental health in cancer. *Cancer* 2015;121:3769-3778. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/26258536>.

343. Li S, Stampfer MJ, Williams DR, VanderWeele TJ. Association of Religious Service Attendance With Mortality Among Women. *JAMA Intern Med* 2016;176:777-785. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/27183175>.

344. Vallurupalli M, Lauderdale K, Balboni MJ, et al. The role of spirituality and religious coping in the quality of life of patients with advanced cancer receiving palliative radiation therapy. *J Support Oncol* 2012;10:81-87. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22088828>.

345. Balboni TA, Vanderwerker LC, Block SD, et al. Religiousness and spiritual support among advanced cancer patients and associations with end-of-life treatment preferences and quality of life. *J Clin Oncol* 2007;25:555-560. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/17290065>.

346. Astrow AB, Wexler A, Texeira K, et al. Is failure to meet spiritual needs associated with cancer patients' perceptions of quality of care and their satisfaction with care? *J Clin Oncol* 2007;25:5753-5757. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/18089871>.

347. Phelps AC, Lauderdale KE, Alcorn S, et al. Addressing spirituality within the care of patients at the end of life: perspectives of patients with advanced cancer, oncologists, and oncology nurses. *J Clin Oncol* 2012;30:2538-2544. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22614979>.

348. Balboni MJ, Sullivan A, Amobi A, et al. Why is spiritual care infrequent at the end of life? Spiritual care perceptions among patients, nurses, and physicians and the role of training. *J Clin Oncol* 2013;31:461-467. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23248245>.

349. Mesquita AC, Chaves ECL, Barros GAM. Spiritual needs of patients with cancer in palliative care: an integrative review. *Curr Opin Support Palliat Care* 2017;11:334-340. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/28922295>.

350. Kruizinga R, Hartog ID, Jacobs M, et al. The effect of spiritual interventions addressing existential themes using a narrative approach on quality of life of cancer patients: a systematic review and meta-analysis. *Psychooncology* 2016;25:253-265. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/26257308>.

351. Xing L, Guo X, Bai L, et al. Are spiritual interventions beneficial to patients with cancer? A meta-analysis of randomized controlled trials following PRISMA. *Medicine (Baltimore)* 2018;97:e11948. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/30170390>.

352. Nasution LA, Afiyanti Y. Spiritual based intervention effect on the psychological aspect of patients with gynaecologic and breast cancer: a systematic review. *Enfermería Clínica* 2021;31:S90-S95. Available at: <https://www.sciencedirect.com/science/article/abs/pii/S1130862120305593#:~:text=The%20effects%20of%20spiritual%2Dbased,with%20gynaecological%20and%20breast%20cancer>.

353. Bauereiss N, Obermaier S, Ozunal SE, Baumeister H. Effects of existential interventions on spiritual, psychological, and physical well-being in adult patients with cancer: Systematic review and meta-analysis of randomized controlled trials. *Psychooncology* 2018;27:2531-2545. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/29958339>.



354. Exline JJ, Pargament KI, Grubbs JB, Yali AM. The Religious and Spiritual Struggles Scale: development and initial validation. *Psychology of Religion and Spirituality* 2014;6:208-222. Available at:

<http://psycnet.apa.org/record/2014-30104-002>.

355. van Bruggen V, Ten Klooster P, Westerhof G, et al. The Existential Concerns Questionnaire (ECQ)-development and initial validation of a new existential anxiety scale in a nonclinical and clinical sample. *J Clin Psychol* 2017;73:1692-1703. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/28369920>.

356. Shanafelt T, Dyrbye L. Oncologist burnout: causes, consequences, and responses. *J Clin Oncol* 2012;30:1235-1241. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/22412138>.

357. Shanafelt TD, Gradishar WJ, Kosty M, et al. Burnout and career satisfaction among US oncologists. *J Clin Oncol* 2014;32:678-686.

Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24470006>.

358. Rath KS, Huffman LB, Phillips GS, et al. Burnout and associated factors among members of the Society of Gynecologic Oncology. *Am J Obstet Gynecol* 2015;213:824 e821-829. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/26226551>.

359. Medisaukaite A, Kamau C. Prevalence of oncologists in distress: systematic review and meta-analysis. *Psychooncology* 2017;26:1732-1740. Available at:

<https://www.ncbi.nlm.nih.gov/pubmed/28116833>.

360. Sanchez-Reilly S, Morrison LJ, Carey E, et al. Caring for oneself to care for others: physicians and their self-care. *J Support Oncol* 2013;11:75-81. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/23967495>.