

NCCN

Survivorship: Sexual Dysfunction (Male), Version 1.2013

Clinical Practice Guidelines in Oncology

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Overview

Cancer treatment, especially hormonal therapy and therapy directed toward the pelvis, can often impair sexual function. In addition, depression and anxiety, which are common in survivors, can contribute to sexual problems. Thus, sexual dysfunction is common in survivors and can cause increased distress and have a significant negative impact on quality of life.¹⁻⁵ Nonetheless, sexual function is often not

Abstract

Various anticancer treatments, especially those directed toward the pelvis, can damage blood vessels and reduce circulation of blood to the penis and/or damage the autonomic nervous system, resulting in higher rates of erectile dysfunction in survivors than in the general population. In addition, hormonal therapy can contribute to sexual problems, as can depression and anxiety, which are common in cancer survivors. This section of the NCCN Guidelines for Survivorship provides screening, evaluation, and treatment recommendations for male sexual problems, namely erectile dysfunction. (*J Natl Compr Canc Netw* 2014;12:356–363)

NCCN Categories of Evidence and Consensus

Category 1: Based upon high-level evidence, there is uniform NCCN consensus that the intervention is appropriate.

Category 2A: Based upon lower-level evidence, there is uniform NCCN consensus that the intervention is appropriate.

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All recommendations are category 2A unless otherwise noted.

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

Please Note

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Disclosures for the NCCN Survivorship Oncology Panel

At the beginning of each NCCN Guidelines panel meeting, panel members review all potential conflicts of interest. NCCN, in keeping with its commitment to public transparency, publishes these disclosures for panel members, staff, and NCCN itself.

Individual disclosures for the NCCN Survivorship Panel members can be found on page 363. (The most recent version of these guidelines and accompanying disclosures are available on the NCCN Web site at NCCN.org.)

These guidelines are also available on the Internet. For the latest update, visit NCCN.org.

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discussed with survivors.^{6,7} Reasons for this include a lack of training of health care professionals, discomfort of providers with the topic, and insufficient time during visits for discussion.¹ However, effective strategies for treating both female and male sexual dysfunction exist,^{8–11} making these discussions a critical part of survivorship care.

Male Aspects of Sexual Dysfunction

The NIH Consensus Conference on Impotence defined impotence, or male erectile dysfunction (ED), as the inability to achieve or maintain an erection sufficient for satisfactory sexual performance.¹² In fact, impotence and ED are not synonymous. Impotence can involve problems of sexual desire, orgasm,

or ejaculation, which are not necessarily linked with achieving or maintaining an erection.¹³

ED occurs frequently in the general population and increases with age.¹⁴ In one community-based study, 33% of men aged at least 75 years reported moderate or worse ED.¹⁵ ED is also very common in male cancer survivors. Anticancer treatment modalities used in a variety of cancers have the potential to damage blood vessels, leading to a reduction in blood circulation to the penis, and/or damage to the autonomic nervous system. Thus, higher rates of ED are seen in cancer survivors than in the general population. The prevalence of ED in male survivors of colorectal cancer has been reported to range from 45% to 75%,^{2,16,17} and it has been reported in up to 90% of prostate cancer survivors.^{18–22}

Text cont. on page 361.

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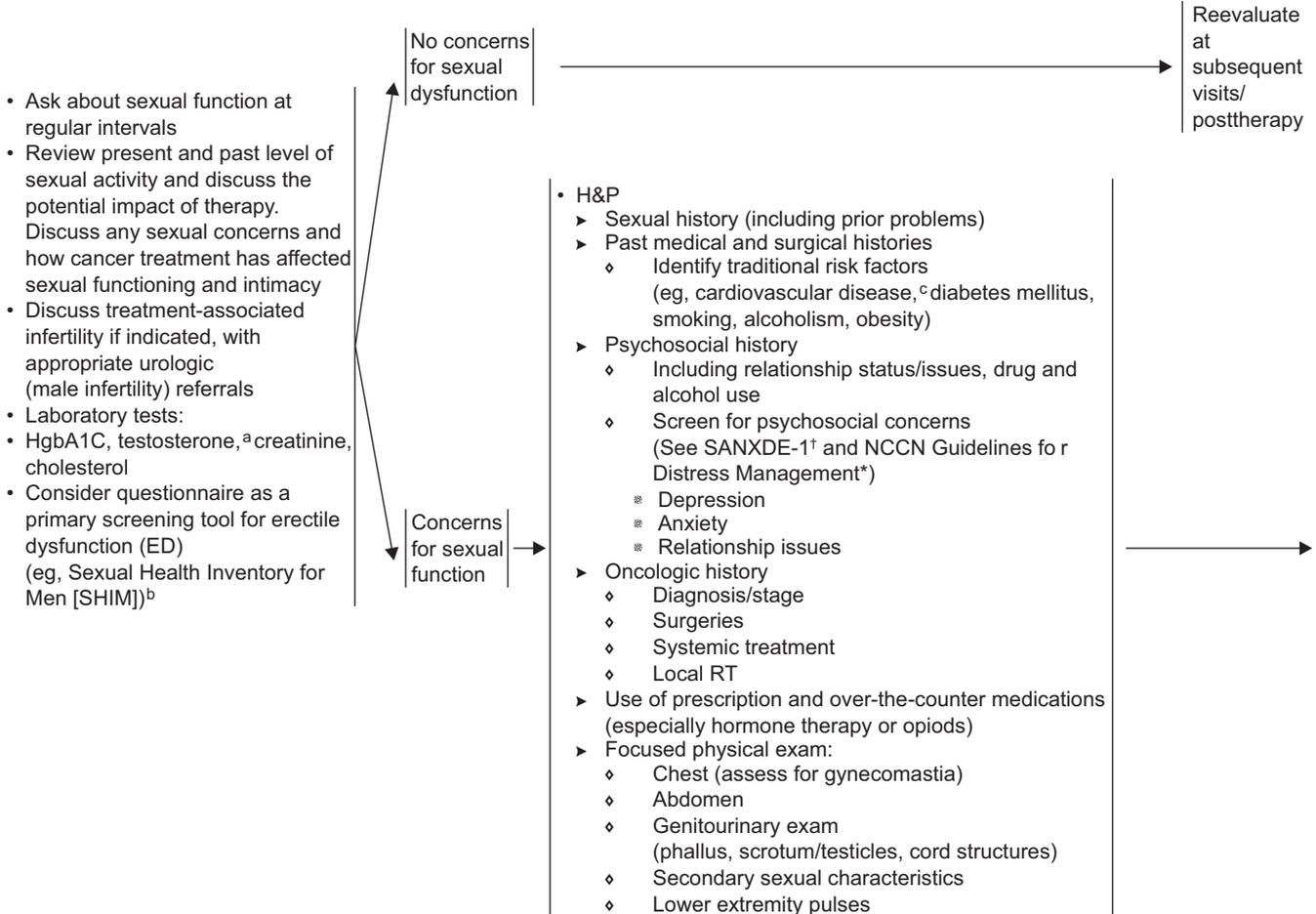
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DIAGNOSTIC EVALUATION



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[†]Available online, in these guidelines, at NCCN.org.

^aSpecial consideration should be given to those men with androgen ablative therapy where testosterone replacement is ill-advised (ie, patient with advanced prostate cancer undergoing combination radiation/LHRH antagonist).

^bSee Sexual Health Inventory for Men (SHIM) (SSFm-A).

^cThe cardiovascular risk of all men with ED, especially those with cardiovascular disease, should be estimated. Sexual activity is equivalent to walking 1 mile in 20 minutes on a flat surface or to climbing 2 flights of stairs in 20 seconds. Patients with high risk should be referred to a cardiologist. (Nehra A, Jackson G, Miner M, et al. The Princeton III Consensus recommendations for the management of erectile dysfunction and cardiovascular disease. *Mayo Clin Proc* 2012;87:766-778).

SSFm-1

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

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INITIAL MANAGEMENT

SECOND-TIER MANAGEMENT

- Recommend modifying risk factors for ED:
 - ▶ Lifestyle modifications to improve vascular function such as smoking cessation, maintaining ideal body weight and engaging in regular exercise, and avoiding excess alcohol consumption
- Identify sources for psychosocial dysfunction with appropriate referrals for psychotherapy or sexual/couples counseling
- Consider the following therapies for ED^d:
 - ▶ Oral phosphodiesterase type 5 (PDE5i) inhibitors as first-line therapy unless contraindicated (eg, patients taking oral nitrates)
 - ◊ Monitoring should include a periodic follow-up of efficacy, side effects, and any significant change in health status
 - ◊ An adequate trial of PDE5i should be defined as at least 5 separate occasions at the maximum dose before reporting it as noneffective unless the reason for fewer trials is an unacceptable side effect

→ Second trial of PDE5i (ie, a different PDE5i)^e →

- Repeat evaluation and treatment options, with appropriate referrals for psychotherapy, sexual counseling as indicated
- If second trial of PDE5i fails, consider the following therapies for ED with referral to a urologist:
 - ▶ Intraurethral alprostadil suppositories
 - ▶ Intracavernous vasoactive drug injection therapy
 - ▶ Vacuum constriction devices (VCD)
 - ▶ Penile prosthesis implantation (if the above methods fail)

^dThe management of ED should be applied in a stepwise fashion with increasing invasiveness and risk balanced against efficacy. The patient and, when possible, his partner should be informed of the relevant treatment options and their associated risks and benefits.

^eBefore proceeding to other therapies, those with a failure of first-line PDE5i therapy should be evaluated to determine whether the trial of PDE5i was adequate. Consider switching the dose before moving to second-line therapies.

SSFM-2

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SEXUAL HEALTH INVENTORY FOR MEN (SHIM)¹

Sexual health is an important part of an individual's overall physical and emotional well-being. Erectile dysfunction (ED), also known as impotence, is a very common medical condition affecting sexual health. Fortunately, there are many different treatment options for ED. This questionnaire is designed to help you and your doctor identify if you may be experiencing erectile dysfunction. If you are, you may choose to discuss treatment options with your doctor.

Each question has several possible responses. Circle the number of the response that best describes your own situation. Please be sure that you select one and only one response for each question.

OVER THE PAST 6 MONTHS:

| | | | | | | |
|---|-----------------------------|-----------------------|--|---------------------------------|--|-------------------------|
| 1. How do you rate your confidence you could get and keep an erection? | | Very Low | Low | Moderate | High | Very High |
| | | 1 | 2 | 3 | 4 | 5 |
| 2. When you had erections with sexual stimulation, how often were your erections hard enough for penetration (entering your partner)? | No sexual activity | Almost never or never | A few times (much less than half the time) | Sometimes (about half the time) | Most times (much more than, half the time) | Almost always or always |
| | 0 | 1 | 2 | 3 | 4 | 5 |
| 3. During sexual intercourse, how often were you able to maintain your erection after you had penetrated (entered) your partner? | Did not attempt intercourse | Almost never or never | A few times (much less than half the time) | Sometimes (about half the time) | Most times (much more than, half the time) | Almost always or always |
| | 0 | 1 | 2 | 3 | 4 | 5 |
| 4. During sexual intercourse, how difficult was it to maintain your erection to completion of intercourse? | Did not attempt intercourse | Extremely difficult | Very difficult | Difficult | Slightly difficult | Not difficult |
| | 0 | 1 | 2 | 3 | 4 | 5 |
| 5. When you attempted sexual intercourse, how often was it satisfactory for you? | Did not attempt intercourse | Almost never or never | A few times (much less than half the time) | Sometimes (about half the time) | Most times (much more than, half the time) | Almost always or always |
| | 0 | 1 | 2 | 3 | 4 | 5 |

PROVIDER KEY: Add the numbers corresponding to questions 1-5.

TOTAL: _____

The SHIM further classifies ED severity with the following breakpoints:

1-7: Severe ED 8-11: Moderate ED 12-16: Mild to moderate ED 17-21: Mild ED

¹ Reproduced and modified with permission from Cappelleri JC, Rosen RC. The Sexual Health Inventory for Men (SHIM): a 5-year review of research and clinical experience. *Int J Impot Res* 2005;17:307-319.

SSFM-A

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In 2005, the American Urological Association (AUA) published a guideline on the management of ED; it was reviewed and confirmed as still valid by the AUA in 2011.¹³ Using a consensus-based approach with the AUA guideline as a guide, the NCCN Survivorship Panel concluded that (1) informed patient and physician decision-making is the standard for guiding treatment decisions for ED treatment; and (2) a psychological overlay frequently exists in patients with ED and may be even more pronounced in the face of cancer survivorship. Endocrine disorders are also an important consideration in the cause of ED. Although sex therapy and the diagnosis and treatment of endocrine disorders are important management issues, these are beyond the scope of these guidelines and are therefore not addressed in depth.

Evaluation and Assessment for Male Sexual Function

Male cancer survivors should be asked about their sexual function at regular intervals. Patients should be asked about their sexual functioning before they received the cancer diagnosis, and their perceptions regarding the impact of cancer treatment on their sexual functioning and intimacy. A quantitative questionnaire such as the Sexual Health Inventory for Men can be considered to help identify patients who might benefit from treatment of ED.¹⁴

Patients with concerns about their sexual function should undergo a more thorough evaluation, including screening for possible psychosocial problems (ie, anxiety, depression, relationship issues, drug or alcohol use) that can contribute to sexual dysfunction. Identifying prescription and over-the-counter medications (especially hormone therapy or opioids) that could be a contributing factor is also important. A focused physical examination can also be helpful and should include examination of the chest (for gynecomastia), abdomen, phallus, scrotum/testicles, and cord structures.

Importantly, cardiovascular risk should be estimated for all men with ED, especially those with cardiovascular disease. Cardiovascular disease and ED share risk factors and often coexist.²³ Sexual activity is considered equivalent to walking 1 mile in 20 minutes on a flat surface or to climbing 2 flights of stairs in 20 seconds.²³ Men who cannot perform these exercises without symptoms are considered to be at high risk for experiencing adverse events associated with sexual activity and should be referred to a cardiologist before treatment for ED.²³

Interventions for Male Sexual Dysfunction

Treatment for ED begins with modification of risk factors, such as smoking cessation, weight loss, increasing physical activity, and avoiding excess alcohol consumption. In addition, treatment of psychosocial problems, with referral to sex and couples therapy as appropriate, can often alleviate symptoms of ED.

Oral phosphodiesterase type 5 inhibitors (PDE5is) have been shown to improve the symptoms of ED and be well tolerated.^{8,10} Many studies have also shown the efficacy and tolerability of PDE5i for treating ED in patients with cancer and survivors.^{24,25} Importantly, PDE5is are contraindicated in patients taking oral nitrates, because together they can lead to a dangerous decrease in blood pressure.^{26,27}

The timing and dose of PDE5i should be started conservatively, and it should be titrated to maximum dose if needed.¹³ The patient should be monitored periodically for efficacy, side effects, and any significant change in health status. An adequate trial of PDE5i is defined as at least 5 separate occasions at the maximum dose before reporting it as noneffective, unless the reason for fewer trials is an unacceptable side effect. A different PDE5i can be tried after failure of first-line PDE5i therapy.

If the second PDE5i fails, additional interventions can be considered, with referral to a urologist. These options include second-level interventions, such as intraurethral alprostadil suppositories, intracavernous vasoactive drug injection therapy, and vacuum constriction. A third-level and definitive type of intervention, penile prosthesis implantation, can be considered.¹³

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| Individual Disclosures for the NCCN Survivorship Panel | | | | | |
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