

Federal Advisory Committee  
Breast Cancer in Young Women  
Sexual Health and Fertility  
Working Group

# Members of Working Group

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# Statement of Problem

- Lack of consistent acknowledgement, assessment, and interventions offered for sexual health concerns among young women with breast cancer
- Lack of consistent acknowledgement, assessment, and interventions offered for fertility concerns among young women with breast cancer

# Review of NCCN Current Guidelines

- Sexual health
- Fertility

# Sexual Health

- NCCN Guidelines under Survivorship



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NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®)

# Survivorship

Version 2.2019 — June 05, 2019

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## NCCN Guidelines Version 2.2019 Survivorship

[NCCN Survivorship Panel Members](#)

[NCCN Survivorship Sub-Committee Members](#)

[Summary of the Guidelines Updates](#)

### General Survivorship Principles

- [Definition of Survivorship & Standards for Survivorship Care \(SURV-1\)](#)
- [General Principles of the Survivorship Guidelines \(SURV-2\)](#)
- [Screening for Subsequent New Primary Cancers \(SURV-3\)](#)
- [Assessment By Health Care Provider at Regular Intervals \(SURV-4\)](#)
- [Survivorship Assessment \(SURV-A\)](#)
- [Survivorship Resources For Health Care Professionals And Patients \(SURV-B\)](#)

### Preventive Health

- [Healthy Lifestyles \(HL-1\)](#)
  - ▶ [Physical Activity \(SPA-1\)](#)
  - ▶ [Nutrition and Weight Management \(SNWM-1\)](#)
  - ▶ [Supplement Use \(SSUP-1\)](#)
- [Immunizations and Infections \(SIMIN-1\)](#)

### Late Effects/Long-Term Psychosocial and Physical Problems

- [Anthracycline-Induced Cardiac Toxicity \(SCARDIO-1\)](#)
- [Anxiety, Depression, Trauma, and Distress \(SANXDE-1\)](#)
- [Cognitive Function \(SCF-1\)](#)
- [Fatigue \(SFAT-1\)](#)
- [Lymphedema \(SLYMPH-1\)](#)
- [Hormone-Related Symptoms \(SMP-1\)](#)
- [Pain \(SPAIN-1\)](#)
- [Sexual Function \(SSF-1\)](#)

• [Female Treatment Options \(SOF-1\)](#)

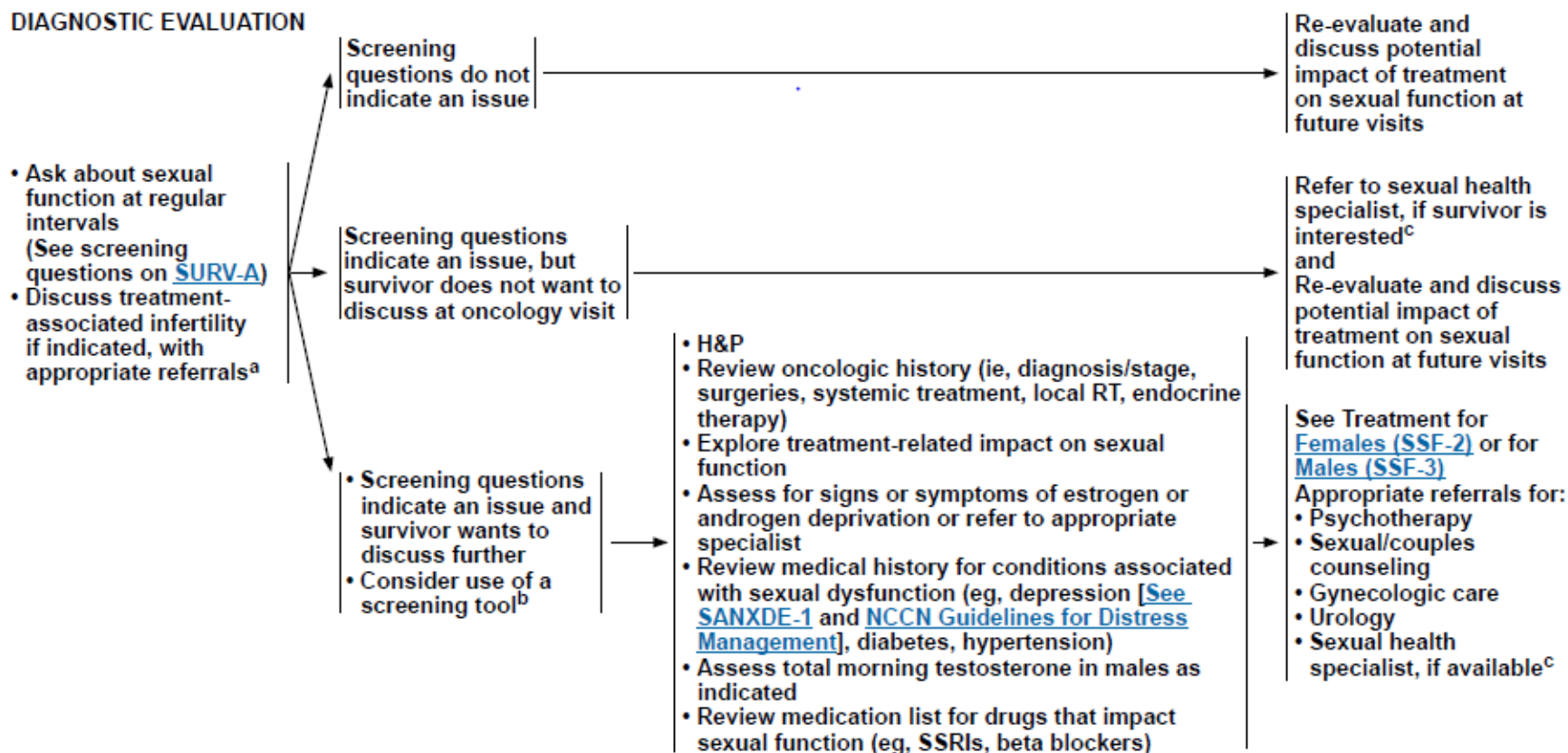
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**DIAGNOSTIC EVALUATION**



<sup>a</sup>For information regarding fertility preservation for patients with cancer, see Loren AW, Mangu PB, Beck LN, et al. Fertility preservation for patients with cancer: American Society of Clinical Oncology clinical practice guideline update. J Clin Oncol 2013;31:2500-2510. <http://www.ncbi.nlm.nih.gov/pubmed/23715580>

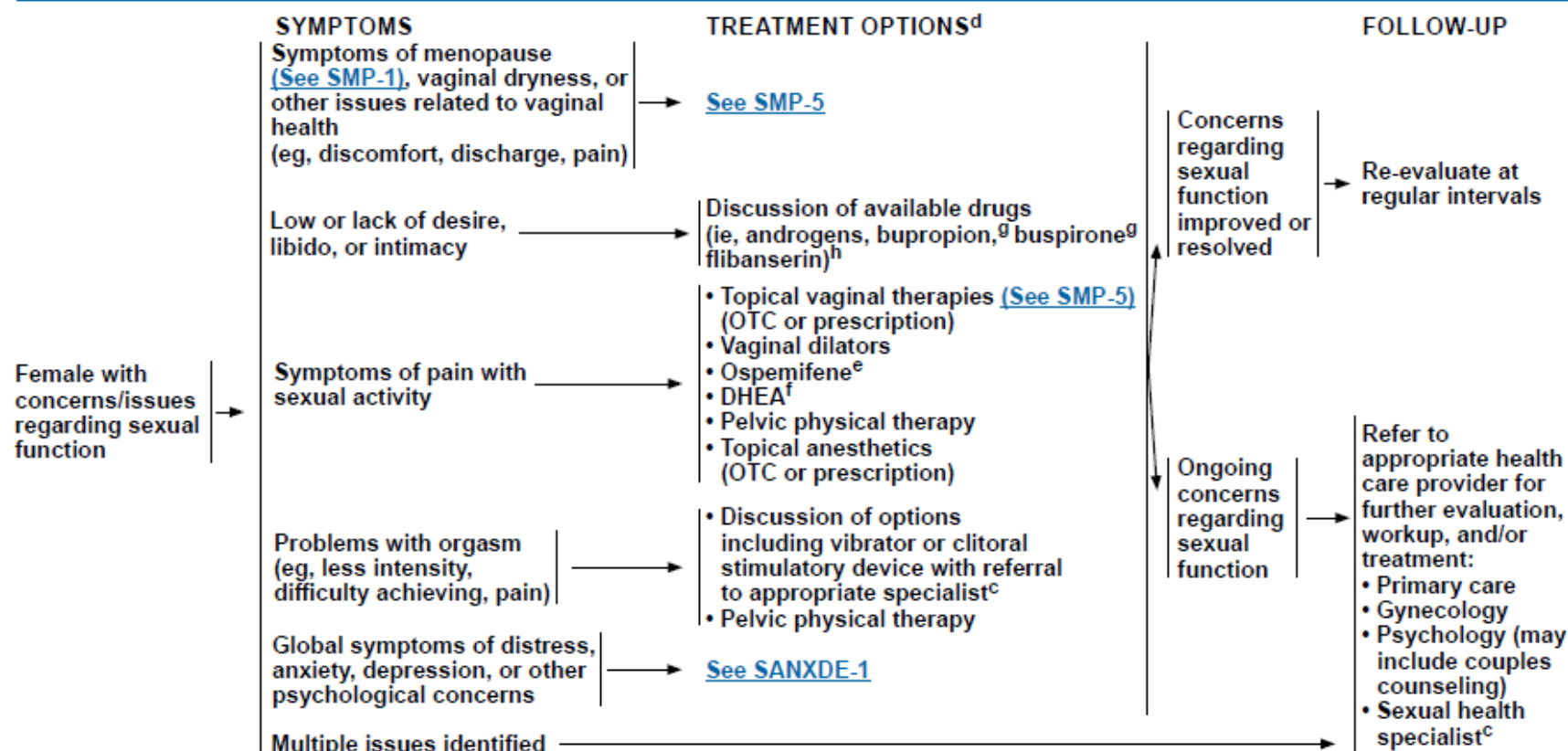
<sup>b</sup>Several Screening tools are available for both men and women. For women, options include the [Brief Sexual Symptom Checklist for Women \(SSF-A\)](#), Arizona Sexual Experience Scale (<http://dx.doi.org/10.1080/009262300278623>), and the Female Sexual Function Index (<http://www.fsfiguestionnaire.com/>). For men, the [Sexual Health Inventory for Men \(SHIM\) \(SSF-B\)](#), Sexual-Quality of Life-Men (<http://dx.doi.org/10.1111/j.1743-6109.2007.00749.x>), and the PROMIS Brief Function Profile-Male (<http://www.assessmentcenter.net/>) are examples.

<sup>c</sup>Sexual health specialists may come from a range of backgrounds, including primary care, gynecology, urology, oncology, psychology, and/or rehabilitation medicine. Whenever possible, survivor should be referred to an appropriate local resource for further sexual health evaluation.

**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.





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Whenever possible, survivor should be referred to an appropriate local resource for further sexual health evaluation.

<sup>d</sup>Discuss risk/benefits of prescription medications if not contraindicated for cancer type or refer to appropriate health care provider (eg, sexual health specialist) for prescription and/or treatment as necessary.

<sup>e</sup>Currently ospemifene is contraindicated in survivors with a history of estrogen-dependent cancers.

<sup>f</sup>DHEA should be used with caution in survivors with a history of estrogen-dependent cancers.

<sup>g</sup>Bupropion and buspirone may be considered as off-label treatments for hypoactive sexual desire disorder, despite limited safety and efficacy data.

<sup>h</sup>There is a lack of data showing a benefit of sildenafil in women or of flibanserin and androgens in cancer survivors. In addition, there is a lack of safety data for the use of androgen-based therapy in survivors of hormonally mediated cancers.

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**BRIEF SEXUAL SYMPTOM CHECKLIST FOR WOMEN<sup>1</sup>**

Please answer the following questions about your overall sexual function:

1. Are you satisfied with your sexual function?

Yes  No

If no, please continue.

2. How long have you been dissatisfied with your sexual function?

3a. The problem(s) with your sexual function is:

(mark one or more)

1 Problem with little or no interest in sex

2 Problem with decreased genital sensation (feeling)

3 Problem with decreased vaginal lubrication (dryness)

4 Problem reaching orgasm

5 Problem with pain during sex

6 Other:

3b. Which problem is most bothersome? (circle)

1 2 3 4 5 6

4. Would you like to talk about it with your doctor?

Yes  No

Reprinted with permission from Hatzichristou D, Rosen RC, Derogatis LR, et al. Recommendations for the clinical evaluation of men and women with sexual dysfunction. J Sex Med 2010;7:337-348.

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# Fertility

- NCCN Guidelines under Adolescent and Young Adult Oncology



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# Adolescent and Young Adult (AYA) Oncology

Version 1.2020 — July 11, 2019

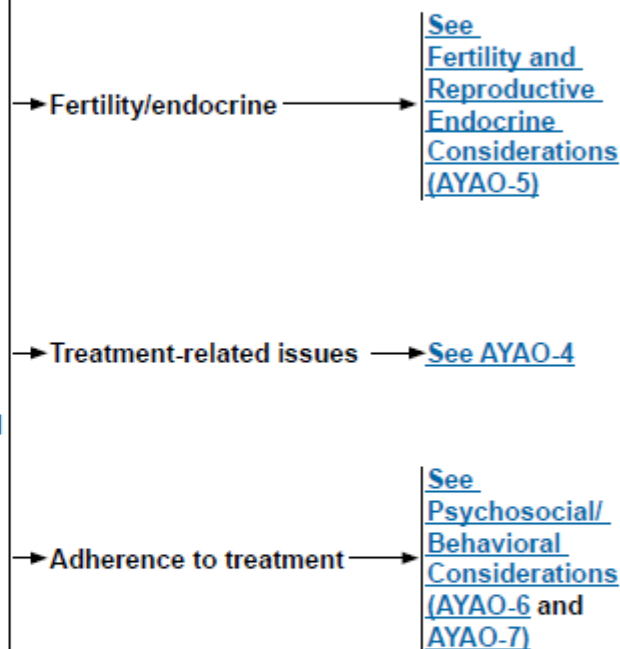
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COMPREHENSIVE INITIAL ASSESSMENT

- Provide age-appropriate information related to cancer  
[See Online Resources for AYA Patients and Survivors \(AYAO-E\)](#)
  - All female patients of child-bearing potential must receive a pregnancy test prior to initiating therapy
  - Discuss contraception prior to initiating therapy for male and female patients
  - Discuss risks of infertility due to cancer and its therapy, as well as fertility preservation  
[See Fertility and Reproductive Endocrine Considerations \(AYAO-5\)](#)
- Psychosocial assessment
  - See Psychosocial/Behavioral Considerations
    - ◊ [Individual \(AYAO-6 and AYAO-7\)](#)
    - ◊ [Relationships \(AYAO-8\)](#)
    - ◊ [Socioeconomic Issues \(AYAO-9\)](#)
  - [See NCCN Guidelines for Distress Management](#)
- Take a thorough family history, preferably by a genetic counselor, and if appropriate recommend referral for genetic and familial risk assessment/counseling based on clinical/family history and histologic diagnosis. Approximately 8%–9% of all patients with cancer will have a germline mutation in a cancer-predisposing gene<sup>f</sup>
  - Risk factors for breast cancer
    - ◊ [See NCCN Guidelines for Genetic/Familial High-Risk Assessment: Breast and Ovarian](#)
    - ◊ Chest irradiation
  - Risk factors for colon cancer
    - ◊ [See NCCN Guidelines for Genetic/Familial High-Risk Assessment: Colorectal](#)
  - Risk factors for sarcomas
    - ◊ [See NCCN Guidelines for Soft Tissue Sarcoma](#)
  - Risk Factors for Multiple Endocrine Neoplasia (MEN)
    - ◊ [See NCCN Guidelines for Neuroendocrine and Adrenal Tumors](#)



<sup>f</sup> Zhang J, Walsh MF, Wu G, et al. Germline mutations in predisposition genes in pediatric cancer. N Engl J Med;2015;373:2236-2346.

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FERTILITY AND REPRODUCTIVE  
ENDOCRINE CONSIDERATIONS

- Addressing fertility and sexual health and function should be an essential part in the management of AYAs with cancer who are at any risk for infertility due to cancer treatments<sup>g</sup>
- Discuss risks for infertility due to cancer and its therapy (especially for high-risk therapies such as alkylating agents or gonadal irradiation), fertility preservation, and contraception as early as possible prior to the start of therapy<sup>h</sup>
  - ▶ Men are at risk for azoospermia following therapy, which may or may not resolve over time
  - ▶ Women are at risk for premature ovarian failure following therapy

- Initiate referral for fertility preservation clinics within 24 hours for all patients who are interested in pursuing fertility preservation
- Refer to a mental health professional to assist with complex decision-making if needed. See Psychosocial/Behavioral Considerations ([AYA0-6](#) and [AYA0-7](#))

Males

- Discuss sperm banking
- Suggest a local sperm bank, or available online sperm banking kit
- Discuss testicular sperm extraction and electroejaculation as options if the patient has medical or religious issues that preclude traditional sperm banking
- Discuss fertility implications and sexuality during and after treatment and the option of testing for fertility with semen analysis. Consider referral to fertility specialist as appropriate.
- Discuss contraception during and after treatment.

Females

- Discuss fertility implications and sexuality during and after treatment and the importance of follow-up with a gynecologist or fertility specialist to monitor ovarian function over time.
- Discuss contraception during and after treatment.
- Discuss embryo or oocyte cryopreservation or ovarian tissue cryopreservation (if available)
  - ▶ Initiate if provider deems that therapy can be delayed long enough for a cycle of oocyte stimulation
- Menstrual suppression
  - ▶ Medroxyprogesterone, oral contraceptives, or gonadotropin-releasing hormone (GnRH) agonists may be used in protocols that are predicted to cause prolonged thrombocytopenia and present a risk for menorrhagia
  - ▶ It is controversial whether menstrual suppression would protect the ovaries, but some data suggest that menstrual suppression with GnRH agonists may protect ovaries in young women with breast cancer before the initiation of chemotherapy.<sup>i</sup>
- Oophoropexy
  - ▶ Ovaries may be surgically moved away from the planned radiation field if feasible

<sup>g</sup> Levine J, Canada A, Stern CJ. Fertility preservation in adolescents and young adults with cancer. *J Clin Oncol* 2010;28:4831-4841.

<sup>h</sup> The impact of cancer therapy on fertility is related to the age of the patient at the time of treatment and is dependent on the duration, dose intensity, and type of treatment. See [NCCN Guidelines for Breast Cancer](#) for the management of women with breast cancer during pregnancy.

<sup>i</sup> Moore HC, Unger JM, Phillips KA, et al. Goserelin for ovarian protection during breast-cancer adjuvant chemotherapy. *N Engl J Med* 2015;372:923-932.  
Demeestere I, Brice P, Peccatori FA, et al. No evidence for the benefit of gonadotropin-releasing hormone agonist in preserving ovarian function and fertility in lymphoma survivors treated with chemotherapy: final long-term report of a prospective randomized trial. *J Clin Oncol* 2016;34:2568-2574.

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# NCCN Guideline Issues:

- **Sexual Health**

- Listed under “survivorship”
- Not specific to young women in breast cancer
- Treatment options not FDA Approved; Requires extensive counseling
- Not consistently used according to the literature/practice
- Sexual minorities not addressed

- **Fertility**

- Listed under “adolescent and young adult”
- Not specific to young women and breast cancer
- Not consistently used according to the literature/practice
- Sexual minorities not addressed

# The Literature

- **Sexual health**

- 2.1 Million breast cancer diagnoses each year worldwide (WHO, 2018)
- 4-6% are women under age of 40
- 68% of women treated for BC experience sexual function issues, 45% still experience once treatment done
  - Most caused by premature ovarian failure as a result of treatment leading to GSM (genitourinary syndrome of menopause), vaginal dryness, pain with intercourse, decreased desire
  - Others self image related (weight gain, loss of breast(s), hair loss)
  - Fatigue, pain



# The Literature...

- **Treatments for GSM**
- Vaginal moisturizers (hyaluronic acid) and lubricants
- Local estrogen – requires risk benefit discussion
- Local DHEA- requires discussion
- Vaginal dilators
- Vaginal stimulation
- CO2 vaginal laser therapy
- Local Lidocaine

\*More detail available if needed

# The Literature...

## Treatments for decreased desire

- Sexual health counseling/therapy
- Flibanserin
- Bremelanotide

\*More details available if needed

# The Literature

- **Fertility**
- Oncofertility- new branch of medicine
  - Embryo cryopreservation
  - Cryopreservation of ovarian tissue
  - Transplantation of ovarian tissue
  - Ovarian suppression
- Theresa Woodruff Northwestern University
- <https://www.youtube.com/watch?v=4G4-38VxrBQ>

# Future Steps...Based on Feedback from Group

- Sexual Health
- Fertility

Thank You