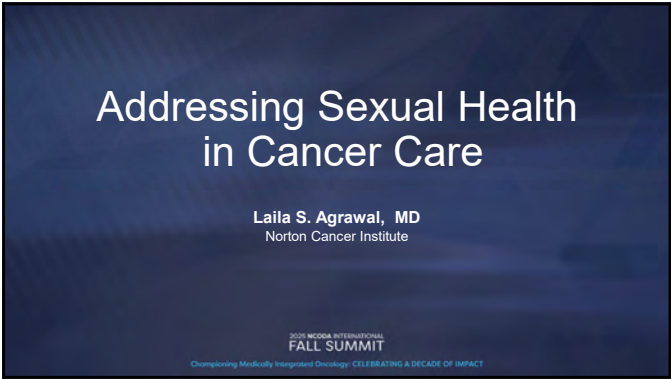
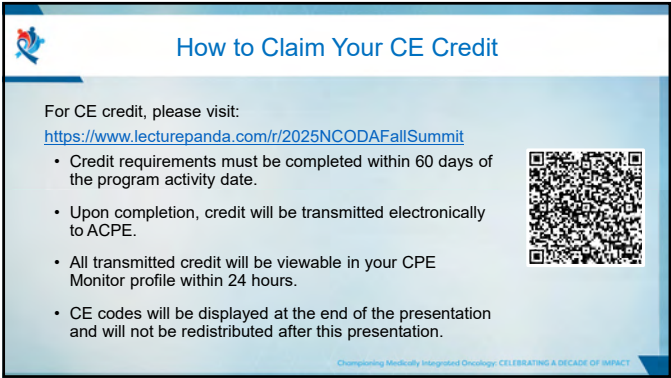




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OBJECTIVES

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1. Describe the impact of cancer treatment on sexual health.

2. Identify strategies for initiating discussions about sexual health with oncology patients and survivors.

3. Discuss effective strategies to educate patients about sexual side effects of cancer treatment, including how to mitigate them.

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DISCLOSURES

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The following relevant financial relationships from the past 24 months have been identified and disclosed for the following faculty and planners of this CE activity:

• Laila S. Agrawal, MD

◦ Pfizer, AstraZeneca, Breast Cancer Index, Tersera

No relevant financial relationships from the past 24 months have been identified for the following planners of this CE activity:

• Tahsin Imam, PharmD

• Mary K. Anderson, BSN, RN, OCN

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Patient Case

• 40 year old woman with a stage III breast cancer s/p neoadjuvant chemotherapy, bilateral mastectomies, radiation, and now is on ovarian suppression and aromatase inhibitor x 2 years.

• She and her husband had not had sex since her cancer diagnosis, but recently attempted. It felt like “razor blades” cutting her and vaginal penetration was impossible.

• They are both terrified to try again due to the pain. “I had no idea cancer would take away my ability to have sex”

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Sexual Concerns Across Tumor Types

Female	Male
• 90% Breast cancer • 90% Gynecological cancer • 77% Lung cancer • 75% Colorectal cancer • 50% Stem cell transplant recipients	• 70% experience sexual health changes • 50% report erectile dysfunction • 30% discuss with their medical professional

Agarwal et al. Enhancing Sexual Health for Cancer Survivors. Am Soc Clin Oncol Educ Book 45, e472656(2025).

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Women's Insights on Sexual Health after Breast Cancer: WISH-BREAST

- 89.5% - breast cancer diagnosis or treatments caused a moderate to great deal of change to sexual health
- 85% - sexual health changes caused a moderate to great deal of distress
- 73% - did not receive information about sexual health from their healthcare team
- 71% of those who did discuss sexual health initiated the conversation themselves

Agarwal et al. Women's insights on sexual health after breast cancer (WISH-BREAST). JCO 42, 12132-12132(2024).

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QUESTION 1

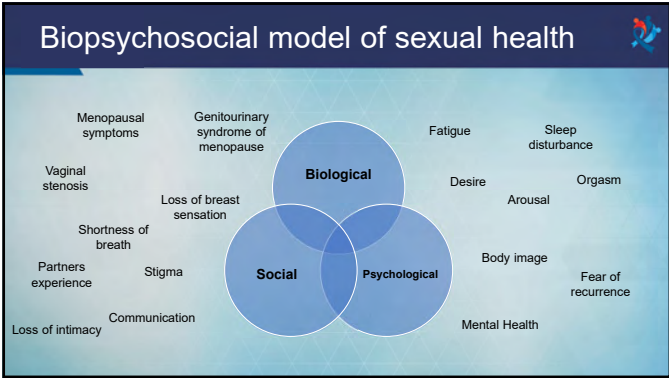
What percentage of breast cancer patients have sexual health concerns?

- a. 25%
- b. 50%
- c. 90%

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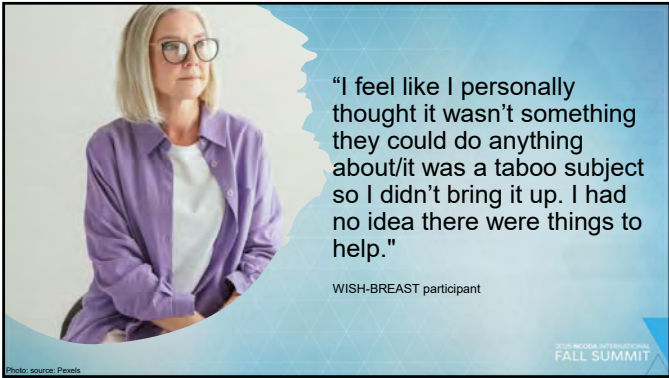
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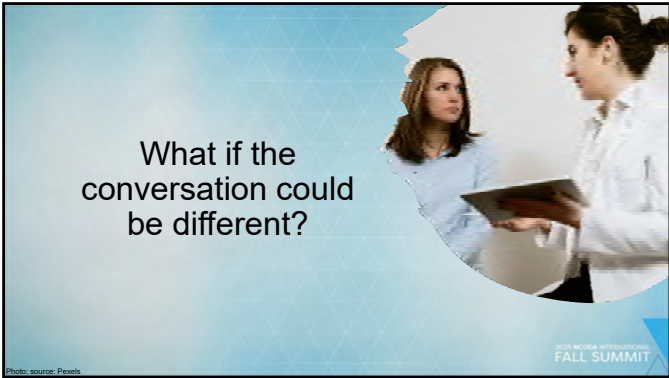
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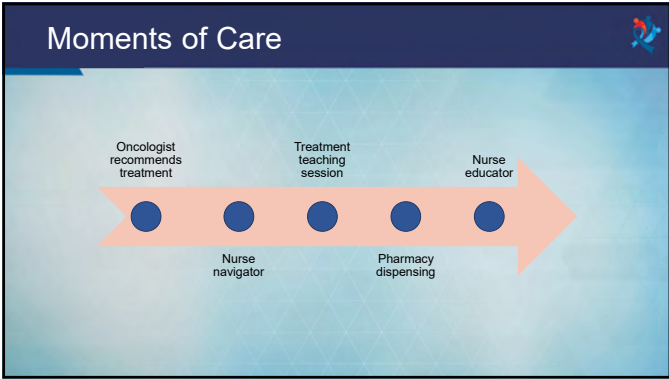
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-
- A presentation slide titled "Before Cancer Treatment" with a dark blue header and a light blue background with a geometric pattern. A list of nine bullet points is on the left side. A small logo is in the top right corner of the slide.
- How will this treatment impact sexual health?
 - What are the options for treatment?
 - Is it safe to have sex while on this treatment?
 - What precautions are needed?
 - What about kissing? What about oral sex?
 - Is it possible to get pregnant or impregnate someone while on this treatment?
 - What methods of contraception are safe?
 - Will this impact fertility?
 - What can be done to preserve fertility?

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Methods to Ask About Sexual Health

- Ubiquity statement:
"Sexual health concerns are common after cancer treatment. Are you having any concerns?"
- Checklists
- Just ask
- Review of systems
- Validated Patient Reported Outcomes (PRO) tools
 - (PROMIS, FSFI)

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QUESTION 2

What is an appropriate communication technique for discussing sexual health?

- a. Ubiquity statement
- b. Asking patient to step out of room and asking the partner
- c. Adding a question about sexual health to the patient satisfaction survey

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Patient Case

- 40 year old woman with a stage III breast cancer s/p neoadjuvant chemotherapy, bilateral mastectomies, radiation, and now is on ovarian suppression and aromatase inhibitor x 2 years.
- She and her husband had not had sex since her cancer diagnosis, but recently attempted. It felt like "razor blades" cutting her and vaginal penetration was impossible.
- They are both terrified to try again due to the pain. "I had no idea cancer would take away my ability to have sex"

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Agrawal et al. Enhancing Sexual Health for Cancer Survivors. Am Soc Clin Oncol Educ Book 45, e472856(2025)

[illegible]

-

Rebollar, Karla R. et al. Genitourinary Syndrome of Menopause. *Clinics in Geriatric Medicine*, Volume 41, Issue 2, 239 - 250[illegible]

Treatment	Notes
Moisturizers	
Vulvovaginal moisturizers	Use 3-5x/week
Hyaluronic acid-containing vulvovaginal moisturizers	More effective than plain moisturizer
Vitamin E or D vaginal suppositories	
Lubricants	
Water-based lubricants	pH and osmolality matched, avoid irritants
Silicone-based lubricants	May stain

[illegible]

Case Update

- She initiated vaginal moisturizers with hyaluronic acid 5 days a week.
- There was some improvement, but continued to have dryness, decreased lubrication, and pain

Can vaginal hormones be prescribed?

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When I first brought it up it was “if nothing else works and your quality of life is miserable, we can talk about it.”

WISH-BREAST participant

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Local Hormones

Category	Composition	Commonly Used Starting Dose	Commonly Used Maintenance Dose	Typical Serum Estradiol Level
Vaginal Creams	17β- estradiol 0.01% (0.1 mg active ingredient/g)	0.5 -1 grams daily for 2 weeks	0.5 -1 gram 1-3 times/week	Variable, 3-5α
	Conjugate estrogen (0.625 mg active ingredient/g)	0.5-1 grams daily for 2 weeks	0.5 grams 1-3 times/week	Variable
Vaginal Inserts	17β- estradiol inserts	4 or 10µg/day for 2 weeks	1 insert twice/week	3.6 (4µg) 4.6 (10µg)
	estradiol hemihydrate tablets	4 or 10µg/day for 2 weeks	1 insert twice/week	5.5
	prasterone (DHEA) inserts	6.5mg/day	1 insert/day	5
Vaginal Rings	Silicone polymer with a core containing 2mg estradiol	7.5mcg/day for 3months	1 ring/ three months	8
Oral Tablet	ospemifene	60mg/day	1 tablet by mouth/day	N/A

Kaufman MR, Azkemian LA, Amin KA, et al. The AUA/SUFU/AUGS Guideline on Genitourinary Syndrome of Menopause. J Urol. 0(0).

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Journal of Clinical Oncology

Interventions to Address Sexual Problems in People With Cancer: American Society of Clinical Oncology Clinical Practice Guideline Adaptation of Cancer Care Ontario Guideline

For women with hormone-positive breast cancer who are symptomatic and not responding to conservative measures, **low-dose** vaginal estrogen can be considered after a **thorough** discussion **of risks and benefits**.

ADONIS PUBLICATIONS

Treatment of Urogenital Symptoms in Individuals With a History of Estrogen-dependent Breast Cancer Clinical Consensus

Management of genitourinary syndrome of menopause in women with or at high risk for breast cancer: consensus recommendations from The North American Menopause Society and The International Society for the Study of Women's Sexual Health

For patients with GSM who have a personal history of breast cancer, clinicians may recommend local low-dose vaginal estrogen in the context of multi-disciplinary shared decision making (*Expert Opinion*)

25

American Urological Association

Genitourinary Syndrome of Menopause: AUA/SUFU/AUGS Guideline

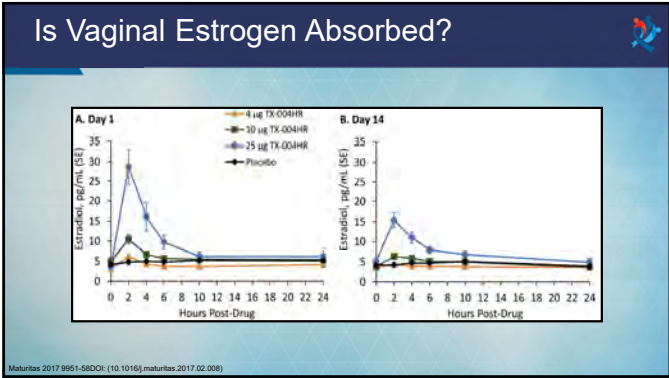
BREAST AND ENDOMETRIAL CANCER

For patients with GSM who have a personal history of breast cancer, clinicians may recommend local low-dose vaginal estrogen in the context of multi-disciplinary shared decision making (*Expert Opinion*)

23. Clinicians should counsel patients with GSM that neither vaginal dehydroepiandrosterone (DHEA) nor ospemifene increase the risk for endometrial hyperplasia with atypia or endometrial cancer. (Moderate Recommendation; Evidence Level: Grade C)

For patients with GSM who have a personal history of breast cancer, clinicians may recommend local low-dose vaginal estrogen in the context of multi-disciplinary shared decision making (*Expert Opinion*)

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Systemic or Vaginal Hormone Therapy After Early Breast Cancer: A Danish Observational Cohort Study

Journal of Clinical Oncology

November 2, 2023

8,461 patients

No difference in recurrence 1.08 (0.89 to 1.32)

Reduced overall mortality 0.78 (0.71 to 0.87)

Aromatase inhibitor subgroup had increased recurrence 1.39 (1.04 to 1.85), but not mortality

Safety of Vaginal Estrogen Therapy for Genitourinary Syndrome of Menopause in Women With a History of Breast Cancer

Journal of Clinical Oncology

November 2, 2023

42,113 patients

No increased risk of breast cancer recurrence RR 1.03 (0.91–1.18)

Estrogen receptor positive subgroup RR 0.94 (0.77–1.15)

Vaginal Estrogen Therapy Use and Survival in Females With Breast Cancer

Journal of Clinical Oncology

November 2, 2023

49,237 patients

Reduced breast cancer–specific mortality (HR, 0.77; 95% CI, 0.63–0.94)

Estrogen receptor positive subgroup (HR, 0.88; 95% CI, 0.62–1.25)

Aromatase inhibitors subgroup (HR, 0.72; 95% CI, 0.58–0.91)

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SEER Cohort

- A retrospective cohort study of 18,620 female breast cancer patients ≥ 65 years of age diagnosed between 2010-2017 in the SEER-MHOS
- Local vaginal estrogen user (n=800) to non-user (n=17,820)
- Increase in overall survival (HR=0.56, p<0.0001)
- Increase in breast cancer-specific survival (HR=0.53, p=0.014) among vaginal estrogen users
- Increased OS with >7 years use (median duration) compared to <7 years (HR=0.01, p<0.0001).
- Hormone positive breast cancer showed a statistically significant **increase** in overall survival for those who used vaginal estrogen compared to those who did not (HR=0.62, p=0.0007), and a nonsignificant increase in breast cancer specific survival (HR=0.62, p=0.08).

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Barriers at the Pharmacy



- Prescriptions not filled
- Patients told that vaginal estrogen causes cancer
- The "Boxed Warning"
 - Increased risk of breast cancer
 - Other combinations and dosage forms of estrogens and progestins, in the absence of comparable data, risks should be assumed to be similar

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QUESTION 3

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Is vaginal estrogen contraindicated for patients with breast cancer?

a. Yes

b. No

c. Only contraindicated for estrogen receptor positive breast cancer

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Domains of Sexual Dysfunction

Genital symptoms

- Genitourinary syndrome of menopause (GSM)
- Pelvic floor dysfunction

Sexual response

- Desire
- Arousal
- Orgasm

Psychosocial

- Body image
- Relationship/Intimacy issues

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Pelvic Floor Dysfunction

↑

Underactive

Organ prolapse

Incontinence

Overactive

Pelvic pain

Urinary symptoms/Constipation

↓

Pelvic Floor Physical Therapy

Vaginal Dilator Therapy

- 5-10 min a day, 2-3 times a week

Kaufman, Agrawal, et al. From diagnosis to survivorship addressing the sexuality of women during cancer. The Oncologist, Volume 29, Issue 12, December 2024, Pages 1014-1023

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Domains of Sexual Dysfunction

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"I was handed three porn sites on a post-it note."

WISH-BREAST participant

Photo source: Pexels

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Low Sexual Desire

- Is it distressing?
- Treat physical symptoms
- Review medication list
- Assess body image, relationship concerns
- Role of nutrition, exercise, sleep, stress



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Treatment for Low Desire

Lifestyle Recommendations

- Understanding reactive vs spontaneous desire
- Psychosocial counseling/Sex therapy
- Sensate Focus
- Mindfulness
- Exercise

Medications

- Flibanserin
- Bremelanotide
- Testosterone

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Flibanserin

Study Background:

- 37 women with breast cancer on endocrine therapy
- Flibanserin 100mg at bedtime for 24 weeks and were followed for 52 weeks

Study Results:

- Improvement in desire, arousal, lubrication, orgasm, satisfaction, and pain
- Scores declined after discontinuing the medication
- Less pain and distress with sexual intercourse, increased number of sexually satisfying events
- Sleep improved from 6.7 hours to 7.7 on flibanserin, then decreased to 5.5
- A larger randomized placebo-controlled study is still needed

The diagram illustrates the mechanism of action of Flibanserin. Flibanserin is shown blocking the SHT_{1A} receptor. This receptor, when activated, leads to an increase in cAMP, which then leads to a decrease in glutamate release. By blocking SHT_{1A}, Flibanserin prevents this inhibition, resulting in decreased glutamate release. This decrease in glutamate release leads to an increase in dopamine and norepinephrine (DA & NE), which ultimately results in increased desire. The diagram also shows that SHT_{1A} activation leads to an increase in cAMP, which then leads to a decrease in glutamate release.

Journal of Clinical Oncology 41, no. 16_suppl (June 01, 2023): 12015-12015. Published online May 31, 2023.
Simon et al. Sexual Medicine Reviews, Volume 7, Issue 4, 2019

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Testosterone

Global Consensus Position Statement on the Use of Testosterone Therapy for Women

- Hypoactive sexual desire disorder is an evidence-based indication for testosterone
- Women with a prior diagnosis of breast cancer were excluded from the randomized trials for HSDD. Caution is recommended for testosterone use in women with hormone-sensitive breast cancer (Expert Opinion).

Davis SR et al. Global Consensus Position Statement on the Use of Testosterone Therapy for Women. J Clin Endocrinol Metab. 2019 Oct 1;104(10):4660-4666.

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Domains of Sexual Dysfunction

Genital symptoms

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- Pelvic floor dysfunction

Sexual response

- Desire
- Arousal
- Orgasm

Psychosocial

- Body image
- Relationship/Intimacy issues

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Body Image



Photo source: Pexels Healthcare (Base), 2024 Jul 12;12(14):1396

- Body image involves
 - Perception, cognition, behaviors, and emotions related to one's body
 - More than just physical appearance
- Cancer and cancer treatment can cause physical changes including
 - loss of a body part
 - hair loss
 - weight changes
 - scarring that affect body image
- Body image concerns
 - Common after cancer treatment
 - May arise at different times.

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Sexual Health Programs



Assessment and identification of sexual health concern



Sexual health program

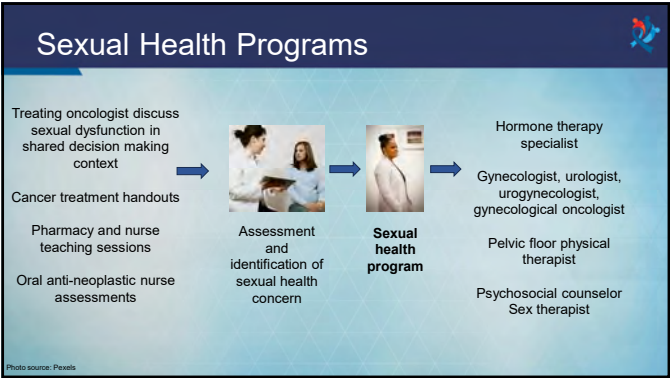
Hormone therapy specialist

Gynecologist, urologist, urogynecologist, gynecological oncologist

Pelvic floor physical therapist

Psychosocial counselor
Sex therapist

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SUMMARY

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- Sexual dysfunction is prevalent and distressing in cancer survivors
- Discussion of impact of treatment on sexual function should occur before, during, and after active cancer treatment
- Evidence based interventions using a biopsychosocial approach can improve sexual health after cancer diagnosis and treatment

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QUESTION & ANSWER

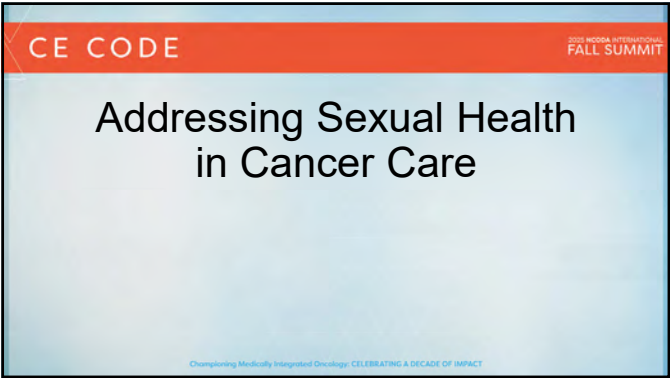
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Addressing Sexual Health in Cancer Care

Laila S. Agrawal, MD
Medical Oncologist

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