

UNC Lineberger Cancer Network  
**PATIENT CENTERED CARE** Webinar

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**live webinar**

May 11, 2022

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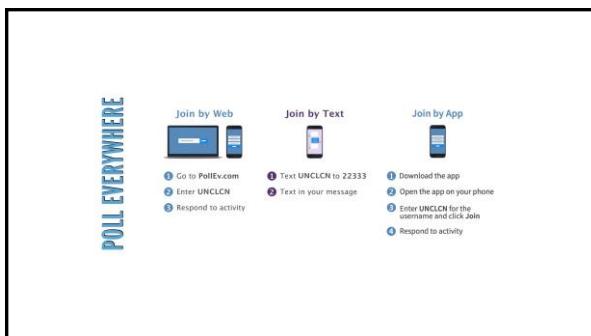
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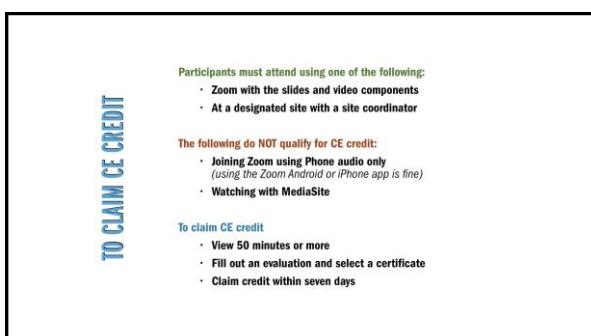
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**OUR PRESENTED**

Allison Beam, MPAP, PA-C

Allison is a physician assistant working at the UNC Lineberger Comprehensive Cancer Center. Prior to joining the UNC Oncology team, she worked as a provider in a local health department for nearly eight years, specializing in Women's and Children's health.

Allison is also adjunct faculty in the Physician Assistant Program at Campbell University. She has a particular interest in providing equitable healthcare to patients from underserved communities and improving health literacy.

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**UNC** LINEBERGER COMPREHENSIVE  
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In your current practice, how confident are you in providing comprehensive care for your patients with a history of breast cancer, including managing long term side effects of cancer treatment and assessing for recurrence?

Very confident **A**  
Somewhat confident **B**  
Not at all confident **C**  
N/A **D**

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This activity has been planned and implemented under the sole supervision of the course directors, in association with the UNC Office of Continuing Professional Development (UNC CPD). William A Wood, DO, MPH, and CPD staff have no relevant financial relationships with commercial interests as defined by the ACCME.

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Poll Everywhere Survey



In your current practice, how confident are you in providing comprehensive care for your patients with a history of breast cancer, including managing long term side effects of cancer treatment and assessing for recurrence?

A: Very confident  
B: Somewhat confident  
C: Not at all confident  
D: N/A



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## The Vital Role of Primary Care Providers in Breast Cancer Survivorship Care

Allison Beam, MPAP, PA-C  
UNC School of Medicine-Division of Oncology  
May 11, 2022



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Poll Everywhere Question #1

According to the American Cancer Society, 1 in \_\_\_\_\_ women will develop breast cancer during their life time.

A: 4  
B: 8  
C: 10  
D: 12



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**Breast Cancer Incidence**

- According to the American Cancer Society, 1 in 8 women will develop breast cancer during their lifetime
- Thanks to advances in screening and treatment, there are estimated to be over 3.8 million breast cancer survivors in the U.S.
- ASCO 2021 State of the Oncology Workforce, estimates 21.1% of currently practicing oncologists are nearing retirement age with only 577 fellows graduating from oncology programs this year.

	# Practicing Oncology in the US	# Practicing Primary Care in the US	# Practicing Oncology in the US	# Practicing Primary Care in NC
Physicians (MD/DO)	12,940 <sup>1</sup>	209,000 <sup>2</sup>	564 <sup>1</sup>	6,324 <sup>1</sup>
Advanced Practice Providers (PA/NP)	9,350 <sup>1</sup>	86,000 <sup>2</sup>	145 <sup>1</sup>	2500 <sup>1</sup>

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**Who are the Survivors?**

- Those living through, with, and beyond breast cancer
- According to the National Cancer Institute, a patient is considered a cancer survivor from the date of diagnosis until the end of their life.



<http://www.cancer.gov/SEEDN/defining-breast-cancer-survivor/>

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**Why is Survivorship Care an Important Part of Primary Care?**

- Life after a cancer diagnosis comes with its own unique challenges that extend far beyond the end of treatment
- Cancer does not occur in a vacuum. Patients often have multiple other health conditions which can affect or be affected by their cancer therapy
- Survivors often have already developed close, trusting relationships with their PCP long before their cancer diagnosis

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**Key Points**

- The Dos and Don'ts of Screening
- Long Term Effects of Cancer Therapy
- Survivorship Care Plans



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## Screening for Breast Cancer



Photo: www.lineberger.org

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### Breast Screening Recommendations

Patients WITHOUT personal hx of Breast Cancer	Patients WITH personal hx of Breast Cancer
<b>Average Risk, Asymptomatic: Ages &gt;/=25 but &lt;40 y</b> -Clinical exam every 1-3 years; breast awareness	Clinical breast exam every 3-6 months for 5 years, then annually (and as indicated)
<b>Average Risk, Asymptomatic: &gt;= 40 y</b> -Clinical exam and screening mammogram annually	Annual mammogram -At least 6 months after completion of radiation therapy -Typically, diagnostic mammograms x 5 years, then can return to routine screening mammograms if stable/benign -Routine imaging of reconstructed breast not recommended
<b>Lifetime risk &gt;20% (defined by family hx, prior thoracic radiation, LCIS, ADH, etc)</b> -Annual MRI in addition to annual mammogram	

\*Indications for breast MRI can include strong family history, dense breast tissue, inconclusive mammogram  
-All patients with a history of breast cancer should be counseled to perform monthly self-breast exams

NCCN Guidelines v2 2022

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### Genetic Screening for Breast Cancer

- BRCA1, BRCA2, PALB2, ATM, CHEK2, CDH1, PTEN, TP53
- **Indications**
  - Diagnosed <45y
  - Diagnosed 46-50y with at least one close blood relative with breast, prostate, ovarian, or pancreatic cancer at any age or unknown family hx
  - Diagnosed >50 with 3 blood relatives with breast or prostate cancer
  - Lobular breast cancer with family history of gastric cancer
  - Triple negative breast cancer at any age
  - Male breast cancer or having a blood relative who is male
  - Ashkenazi Jewish ancestry

NCCN Guidelines v2 2022

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**Types of Recurrence**

- **Local:** Cancer returns in the same breast or chest area as the original tumor
- **Regional:** Cancer comes back near the original tumor, in lymph nodes in the armpit (axillary lymph nodes) or collarbone area
- **Distant:** Breast cancer that spreads away from the original tumor to the lungs, bones, brain, liver, or other parts of the body (such as the contralateral breast). This is metastatic disease.

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**Risk Factors for Breast Cancer Recurrence**

- **Anyone** with a history of breast cancer can have a recurrence
- **Age:** Women who develop breast cancer before age 35 are more likely to have a second breast cancer
- **Cancer stage:** Cancer stage and grade at the time of diagnosis correlates with the risk of the cancer being likely to recur. Larger tumor size, lymph node involvement, and higher grade cancer are all additional risk factors.
- **Cancer type:** Aggressive cancers like inflammatory and triple-negative breast cancer can be harder to treat and have a higher risk of recurrence.

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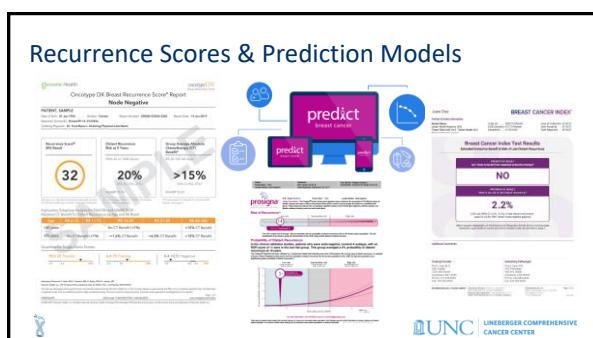


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**Recurrence Scores & Prediction Models**



The image displays several prediction models for breast cancer recurrence:

- Oncotype DX:** Shows a report with a score of 32, a 20% risk of distant metastasis, and a >15% risk of locoregional recurrence.
- predict:** Shows a mobile application interface.
- prosigna:** Shows a mobile application interface.
- Breast Cancer Index Test Results:** Shows a report with a result of NO and a 2.2% risk.

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### Reducing the Risk of Recurrence

- Most local recurrences occur within 5 years of initial diagnosis and treatment
- Endocrine therapy (Aromatase Inhibitor or Tamoxifen) for 5-10 years in combination with ovarian suppression (premenopausal) has been proven to effectively reduce breast cancer recurrence.
- Radiation following lumpectomy; mastectomy if axillary involvement
- No significant survival data in lumpectomy vs. mastectomy.



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### Signs of Recurrence

Local	Regional	Distant
--New breast lump or swelling --Skin changes of the breast --Nipple changes or discharge --Swelling or pulling at the lumpectomy site/scar --New and unusual firmness of the breast tissue	--Hoarseness of voice --Swollen lymph nodes in the axilla or clavicular area --chest pain --Difficulty swallowing --New pain and/or numbness of the arm	--Chronic dry cough --Abdominal pain/swelling --New onset headaches --Extreme fatigue/weakness --Lack of appetite, weight loss --New bone pain --New, otherwise unexplained hypercalcemia, anemia, elevated LFTs

--Work-up and evaluation of any suspected recurrence should be done as soon as possible

--Local recurrence is usually best evaluated with diagnostic mammogram/ultrasound

--Regional or distant recurrence can initially be evaluated using CT of the appropriate body area



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### What is NOT recommended

- Tumor Markers
- Hormone levels
- CBC or CMP
- Routine CT/PET scans, bone scans, liver ultrasounds in asymptomatic patients
- ASCO guidelines indicate that data is insufficient to provide recommendation for any of the above.



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Poll Everywhere Question #2

All of the following can result in an increased risk for breast cancer recurrence EXCEPT:

A: Age >35 at diagnosis  
 B: Triple negative breast cancer  
 C: Lymph node involvement  
 D: T3 tumor (> 5 cm)



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## Long Term Effects of Breast Cancer Treatment

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**Adjuvant Endocrine Therapy**

- Patients with hormone receptor positive (ER and/or PR+) breast cancer
- Selective Estrogen Receptor Modifier (Tamoxifen) or Aromatase Inhibitor (Letrozole, Anastrozole, Exemestane)
- At least 5 years of therapy; some patients may benefit from up to 10 years

Selective Estrogen Receptor Modifiers	Aromatase Inhibitors
Pre/Post-Menopausal Women	Post-menopausal women; Premenopausal women + Ovarian Suppression
Side Effects: Hot flashes, vaginal dryness, thinning hair, amenorrhea, increased risk of DVT, increased risk of endometrial cancer, cataracts	Side Effects: Hot flashes, vaginal dryness, arthralgias/myalgias, decreased bone mineral density
Screening: Annual GYN and eye exam	Screening: DEXA scan every 1-2 years

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### Hot Flashes

- Result of estrogen suppression
- Occur even in women who are already postmenopausal

**HRT is NOT recommended**

-Venlafaxine most effective

-Gabapentin, SSRIs\*, clonidine

-Vitamin E 800 IU, melatonin for those who prefer otc treatment

-Acupuncture

\*Pregnenolone and flutamide can decrease efficacy of Tamoxifen; Citalopram, escitalopram, sertraline are mild CYP2B6 inhibitors and DO NOT interfere with Tamoxifen.

Summary of Findings table (from Appendix C of Lomax, S., Hsu, M., Cheng, B., Brett, M., Gerhard, J., Massovitz, S., ... Choueiri, M. (2018). Comparative effectiveness of treatments for hot flashes in women with breast and prostate cancer: A systematic review with meta-analyses. *Cancer Nursing*, 41(4), 308-316. <http://dx.doi.org/10.1188/18.CCR.308-316-E026>)

Primary Outcomes	Classification	Intervention	Risk Ratio (95% CI)
Hot flash composite score	Gold	Venlafaxine	3.73 (1.8, 3.74)
	Gold	Promestrol	2.03 (1.3, 4.9)
	Gold	Clonidine	1.93 (1.1, 3.43)
	Gold	Escitalopram	1.87 (1.1, 4.36)
	Gold	Gabapentin	1.45 (0.8, 2.12)
	May be more effective than placebo	Citralopram + Antidepressant	1.34 (0.54, 3.01)
	May be more effective than placebo	Sham acupuncture	1.30 (0.8, 3.11)
	May be more effective than placebo	Vitamin E	1.14 (0.1, 3.48)
	Avg may be more effective than placebo	Venlafaxine	3.48 (1.1, 4.32)
	Avg may be more effective than placebo	Gabapentin	1.62 (0.8, 3.73)
	May be more effective than placebo	Promestrol	2.11 (1.2, 7.56)
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\*Note: Ratio of Means (e.g. mean reduction of HR frequency in intervention vs. placebo) and reduction of HR frequency in placebo

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### Sexual Functioning

- Studies estimate 40-100% of patients with hx of breast cancer experience some level of decreased sexual functioning
- Hormonal changes, lingering fatigue/pain, body image issues, and emotional exhaustion can all play a role
- ASCO recommends that a member of the patient's medical team screen for sexual functioning issues for all patients with a cancer diagnosis
- Treat the underlying cause
- Psychosocial and/or psychosexual counseling referrals
- Addyi (flibanserin)

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### Vaginal Dryness

- Can lead to painful intercourse, painful exercise, or increase in UTIs
- Hormone replacement therapy contraindicated for HR+ breast cancer survivors
  - Low-dose topical estrogen MAY be considered
- Recommend vaginal moisturizers 3-5 times per week and lubricants with all sexual activity (coconut oil, Replens wipes, KY, etc)
- Pelvic floor therapy, laser therapy

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### Contraception and Cancer

- While chemotherapy tends to cause amenorrhea, studies show that most women <35 years old during treatment will resume normal menstruation within 2 years
- Patients should not become pregnant during chemo, radiation, while on endocrine therapy, or within 6 months of completing immunotherapy
- Use of all hormonal contraception (pills, patch, injection, IUD) remain contraindicated though actual risk is difficult to determine

<https://www.asco.org/-/media/assets/cancer-care/practice-as-it-relates-to-cancer/sites/osteoporosis-and-skeletal-health/guidelines/documents/2019-03-01-ASCO-Bone-Survivorship-Guideline.pdf>



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### Osteoporosis

- PCPs should refer all post-menopausal breast cancer survivors for a baseline DEXA scan
- DEXA scans every 2 years for women taking an aromatase inhibitor, and women who have chemo-induced premature menopause
- Tx: Vitamin D + Calcium, Weight bearing exercise, bisphosphonates
- \*Tamoxifen is bone protective



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### Peripheral Neuropathy

- Common side effect of certain chemotherapy agents, specifically Taxanes
- Can resolve/improve with completion of chemo, but can also be permanent
- Tx: Duloxetine, Gabapentin, Exercise, Acupuncture
- Cryotherapy and dose-reductions are often required during chemo for PN



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### Cardiotoxicity

- According to the American College of Cardiology & the American Heart Association, patients with a history of early stage breast cancer are more likely to die of heart disease than cancer.
- Anthracyclines, trastuzumab, radiation cause oxidative stress
  - monitoring with ECHO/MUGA every 3 months during treatment
  - should be monitored closely for signs of HF for the remainder of their life following treatment
- SERMs can lower cholesterol but increases risk of DVT; AIs can increase cholesterol
- Ribociclib can cause QTc prolongation

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC270002/>



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### Cognitive Impairment

- Up to 75% of cancer patients experience cognitive impairment, including problems with memory, executive functioning, processing speed and attention during or after treatment of their cancer
- Up to 35% of patients can experience long-term cognitive decline
- Exact mechanism unknown; likely multifactorial
  - Stress/anxiety
  - Fatigue/Insomnia
  - Menopause/Hormonal Changes
  - Inflammation
  - Gray Matter Reduction during chemotherapy

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC270002/>



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### Anxiety, Depression, and Fatigue

death guilt  
hormones ptsd dying  
spread unattractive  
scans energy tired anxiety  
genetics insomnia self-blame symptoms  
family recurrence fatigue  
weak fear lump metastasize  
pain worry  
mammogram cancer  
medications

- Frequent screenings are recommended along with referrals for therapy and medication as indicated



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**Lymphedema Risk Factors**

- # of lymph nodes removed
  - Axillary Dissection > Sentinel Lymph Node Biopsy
- Mastectomy>Lumpectomy
- No reconstruction >reconstruction
- Adjuvant treatment with Taxanes
- Higher BMI at time of diagnosis




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**Lymphedema Treatment and Prevention**

- Physical Therapy (with lymphedema specialist if available)
- Self-massage
- Physical Activity
- Compression sleeves/gloves
- Pneumatic pumps



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**Blood Pressures and Blood Draws**

- Multiple observational studies have shown no increased risk in lymphedema associated with air travel, venipuncture, or blood pressure checks
- While precautionary measures could be unnecessary, it is still best practice to use the contralateral arm if possible
- If blood pressure is taken in the at-risk arm, should use manual blood pressure cuff if available

www.ncbi.nlm.nih.gov/pmc/articles/PMC1200360/pdf/trev-Cancer%20in%20Women%20Guidelines%20Final.pdf

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Poll Everywhere Question #3

A patient whose breast cancer treatment including which of the following drugs put her at a higher risk of heart failure even years after treatment completion?

A: Paclitaxel  
B: Carboplatin  
C: Trastuzumab  
D: Tamoxifen



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**Survivorship Care Plans**

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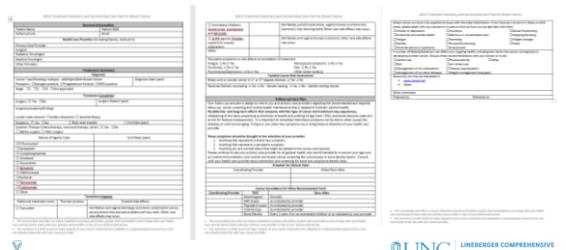
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**Survivorship Care Plan**



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### Components of the SCP (as applicable)

- Cancer Type, Stage, Receptors
- Surgical Treatment/Lymph Node Removal
- Radiation Treatment
- Systemic Treatment (including past and ongoing) to include possible side effects
- Persistent side effects/complications of treatment
- Familiar/Genetic Risk factors
- Follow up Care Plan
  - How often the patient should have a physical exam
  - What screening patient should have and at what intervals (ex: mammogram, DEXA, pelvic/pap)
- Contact information for primary oncologist



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**“THE GOOD PHYSICIAN TREATS THE DISEASE;  
THE GREAT PHYSICIAN TREATS THE PATIENT  
WHO HAS THE DISEASE.”**

WILLIAM OSLER

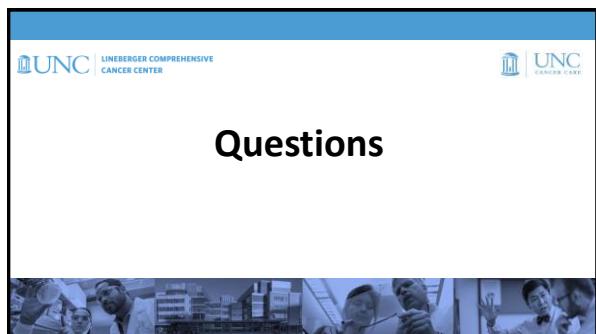


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UNC LINEBERGER COMPREHENSIVE CANCER CENTER

UNC CANCER CARE

## Questions



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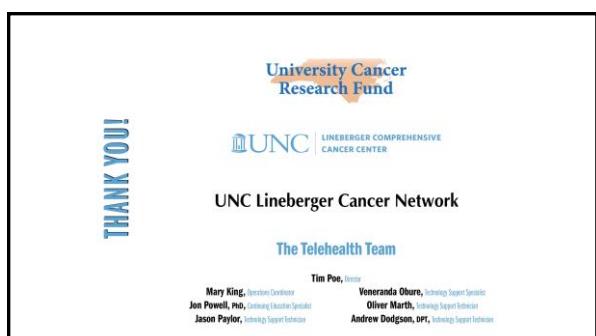
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The Telehealth Team

THANK YOU!

Tim Poe, Team Lead

Mary King, Operations Coordinator  
Jon Powell, Rn, Counseling Liaison Specialist  
Jason Paylor, Technology Support Specialist

Veneranda Oburo, Technology Support Specialist  
Oliver Marth, Technology Support Administrator  
Andrew Dodgson, DPT, Technology Support Technician

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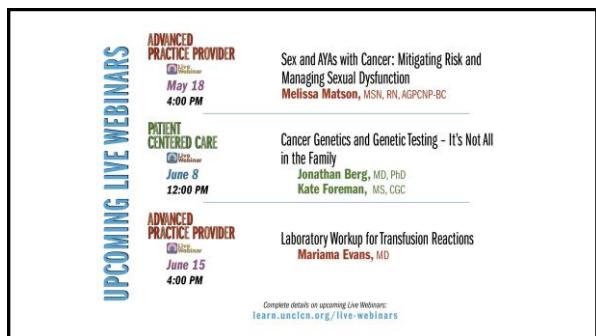
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UPCOMING LIVE WEBINARS

ADVANCED PRACTICE PROVIDER

May 18  
4:00 PM

Sex and AYAs with Cancer: Mitigating Risk and Managing Sexual Dysfunction

Melissa Matson, MSN, RN, AGPCNP-BC

PATIENT CENTERED CARE

June 8  
12:00 PM

Cancer Genetics and Genetic Testing - It's Not All in the Family

Jonathan Berg, MD, PhD  
Kate Foreman, MS, CGC

ADVANCED PRACTICE PROVIDER

June 15  
4:00 PM

Laboratory Workup for Transfusion Reactions

Mariama Evans, MD

Complete details on upcoming Live Webinars:  
[learn.uncancer.org/live-webinars](http://learn.uncancer.org/live-webinars)

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**SELF-PACED, ONLINE COURSES**

**ADVANCED PRACTICE PROVIDER**  
SOUTHEASTERN AMERICAN  
ONCOLOGY CENTER  
PARTNERSHIP

Bridging the Bench and Bedside:  
The Amalgam of Academic Medicine  
and Its Effect on a Cancer Patient Experience  
**Hannah E. Worlax, MD**

**ADVANCED PRACTICE PROVIDER**  
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Cardiotoxicity of Cancer Therapies: A Review for  
the Oncology Provider  
**Brian Colwell Jensen, MD**

**PATIENT-CENTERED CARE**  
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Early Detection of Colorectal Cancer:  
Don't Get Left Behind "45 is the new 50"  
**Rachel Hirshey, PhD, RN**  
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**THANK YOU FOR PARTICIPATING!**

**UNC Lineberger Cancer Network**

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