OCT 13-14
2023

5th Annual
LEAD2023
Enriching Experiences for Women in Hematology & Oncology

University of Nebraska Medical Center

Bio Ascend™

Tools for Managing the Clinical Workload

or

What Would You Change?

Beth Hellerstedt, MD

5th Annual LEAD2023 Enriching Experiences for Women in Hematology & Oncology

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Disclosures

No financial relationships to disclose.

Beginning: August 2003

- Completed residency and fellowship at the University of Michigan
- Hired as a medical oncologist with Texas Oncology in Austin
- The second female in TXO-Austin, and one of 9 medical oncologists
- Learned how to market myself as a physician
- Took the last paper and pencil medical oncology board test
- Offered partnership in August 2004

Beyond Work

- Married to a medical oncologist in the same practice (met as interns at U of M, putting an NG tube into a patient with severe hepatic encephalopathy).
- Two sons (2002 and 2006)
- One dog
- Usual crazy family

Middle: @August 2009 (Pre EMR)

- Seeing 35-40 patients per day, 15-20 new patients per week
- 1-2 new hospital consults per day
- Admitting and rounding on my patients daily, at 1-3 hospitals
- Weekday call for my patients M-F; q8 weekend call rounding on 20-25 oncology patients across 6 hospitals, with 3-5 new hospital consults per day
- Director of Research for TXO-Austin, member of the TXO Research Executive Committee, member of the TXO-Austin Executive Committee, member of the TXO Executive Board, Director of Hematology Services for the Cardiology Transplant/ECMO program

NOT SUSTAINABLE,
ALTHOUGH I DID IT FOR QUITE A WHILE

(EASIER TO SEE THE INEVITABLE
END FROM A DISTANCE)

Workload 2023

- Trying to work 4 days a week
- Seeing 30-32 patients per day and 10-15 new patients a week
- Rounding only on my own inpatients
- No new hospital consults due to the presence of my new partners
- Rotating weekday (@ 2 days a month) and weekend call (@every 12 weeks)—1-2 new consults per call
- Member of the HCA system Cancer Governance Board

To Compare

- 5 days
- 35-40 pts/day
- 15-20 new consults/week
- 1-2 hospital consults/day
- 1-3 hospitals/day and 6 hospitals on the weekend
- Q8 weekend call with 20-25 pts/day
- 5 extra jobs (seemed like 5000)

- 4 days
- 30-32 pts/day
- 10-15 new consults/week
- 0 hospital consults/day
- 1 hospital/day and 3 hospitals on the weekend
- Q12 weekend call with 1-3 pts/day
- 1 extra job (seems like 1000, but clearly better)

Building Efficiencies

Efficiencies - Hospital

- Admitting hospitalists at all hospitals; Oncology hospitalists at my primary hospital
- Rounding at one hospital
- Oncology floor with OCNs
- New partners to absorb hospital consults
- New inpatient billing system
- Pre-filled EMR data for consults and notes
- BMT/acute leukemia program
- Plasmapheresis only for hematology/oncology patients

Efficiencies - Clinic

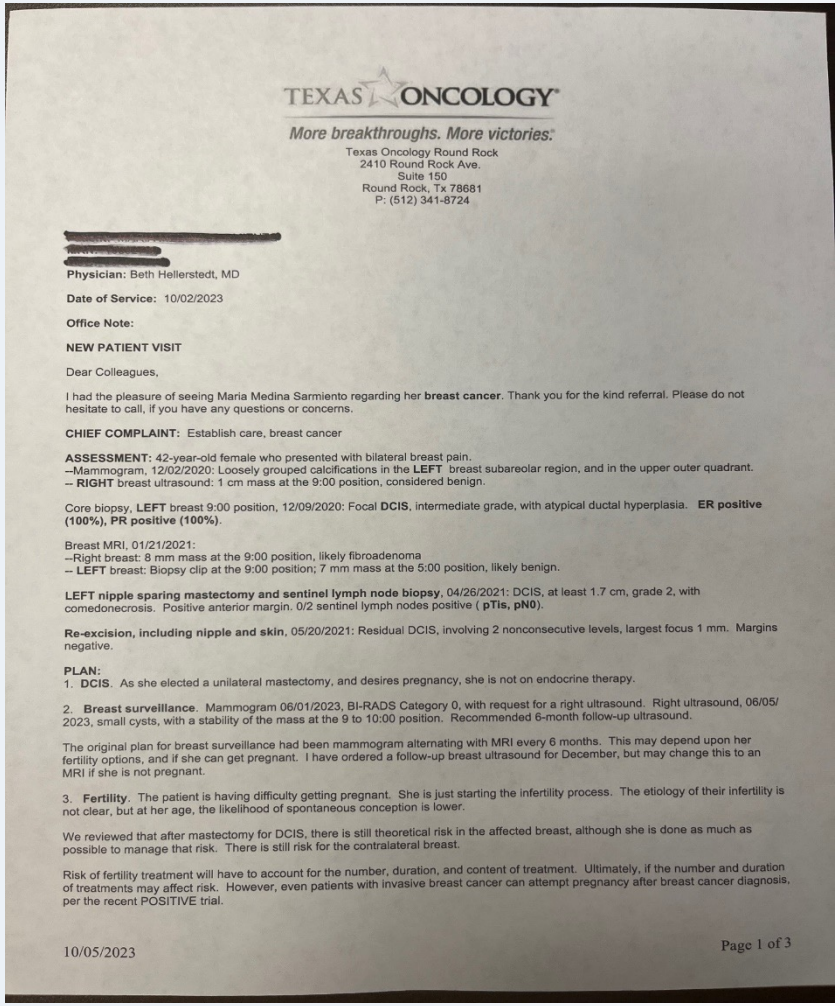
- Physician extenders have truly revolutionized efficiencies in patient care, particularly in the outpatient clinic setting.
- 7 APPs, each working 4 days/week, @20 visits per day, own schedule
  - Toxicity visits
  - Program visits—treatment teaching, genetics, survivorship, ACP
  - Bone marrow biopsies
  - Intrathecal chemotherapy
  - Add on visits
- I am very eager to incorporate physician extenders into the inpatient setting; however, their lack of eagerness is equal in fervor

Efficiencies - Clinic

- APPs come from all clinical backgrounds with all varieties of oncology knowledge
- Three of our current APPs were previously medical oncology or infusion nurses at our clinic; the other four came from pain management, ICU nursing, Total Men's Health via oncology at the VA, another TXO practice
- Training takes about 6 months, and includes formal "classroom" type training, intensive workshops with TXO, shadowing other APPs and physicians, initial independent clinic days with 4-6 patients per day, parallel clinic days with 15-20 patients
- A clearly delineated plan, with specific instructions on timing, dosing, restaging, and follow-up, is crucial to keep extenders functioning independently, as opposed to functioning as a scribe or a medical student; this can also apply to the nursing staff
- My three med onc nurses can function almost as well as my APPs by reading my notes

The EMR: Agony – Most of it Ecstasy - Templates

Notes



TEXAS ONCOLOGY

More breakthroughs. More victories.

Texas Oncology Round Rock
2410 Round Rock Ave.
Suite 150
Round Rock, Tx 78681
P: (512) 341-8724

[redacted]

Physician: Beth Hellerstedt, MD

Date of Service: 10/02/2023

Office Note:

NEW PATIENT VISIT

Dear Colleagues,

I had the pleasure of seeing Maria Medina Sarmiento regarding her **breast cancer**. Thank you for the kind referral. Please do not hesitate to call, if you have any questions or concerns.

CHIEF COMPLAINT: Establish care, breast cancer

ASSESSMENT: 42-year-old female who presented with bilateral breast pain.
--Mammogram, 12/02/2020: Loosely grouped calcifications in the **LEFT** breast subareolar region, and in the upper outer quadrant.
-- **RIGHT** breast ultrasound: 1 cm mass at the 9:00 position, considered benign.

Core biopsy, **LEFT** breast 9:00 position, 12/09/2020: Focal **DCIS**, intermediate grade, with atypical ductal hyperplasia. **ER positive (100%), PR positive (100%)**.

Breast MRI, 01/21/2021:
--Right breast: 8 mm mass at the 9:00 position, likely fibroadenoma
-- **LEFT** breast: Biopsy clip at the 9:00 position; 7 mm mass at the 5:00 position, likely benign.

LEFT nipple sparing mastectomy and sentinel lymph node biopsy, 04/26/2021: DCIS, at least 1.7 cm, grade 2, with comedonecrosis. Positive anterior margin. 0/2 sentinel lymph nodes positive (**pTis, pN0**).

Re-excision, including nipple and skin, 05/20/2021: Residual DCIS, involving 2 nonconsecutive levels, largest focus 1 mm. Margins negative.

PLAN:
1. **DCIS**. As she elected a unilateral mastectomy, and desires pregnancy, she is not on endocrine therapy.

2. **Breast surveillance**. Mammogram 06/01/2023, BI-RADS Category 0, with request for a right ultrasound. Right ultrasound, 06/05/2023, small cysts, with a stability of the mass at the 9 to 10:00 position. Recommended 6-month follow-up ultrasound.

The original plan for breast surveillance had been mammogram alternating with MRI every 6 months. This may depend upon her fertility options, and if she can get pregnant. I have ordered a follow-up breast ultrasound for December, but may change this to an MRI if she is not pregnant.

3. **Fertility**. The patient is having difficulty getting pregnant. She is just starting the infertility process. The etiology of their infertility is not clear, but at her age, the likelihood of spontaneous conception is lower.

We reviewed that after mastectomy for DCIS, there is still theoretical risk in the affected breast, although she is done as much as possible to manage that risk. There is still risk for the contralateral breast.

Risk of fertility treatment will have to account for the number, duration, and content of treatment. Ultimately, if the number and duration of treatments may affect risk. However, even patients with invasive breast cancer can attempt pregnancy after breast cancer diagnosis, per the recent POSITIVE trial.

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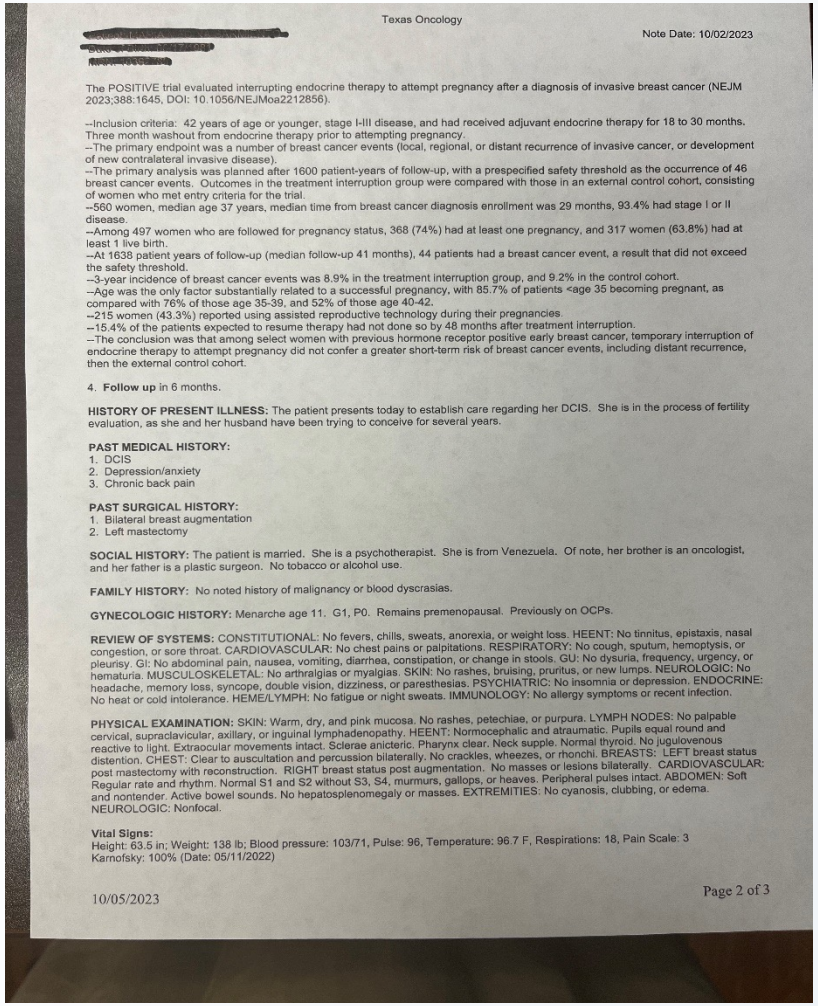

Texas Oncology

[redacted]

Note Date: 10/02/2023

The POSITIVE trial evaluated interrupting endocrine therapy to attempt pregnancy after a diagnosis of invasive breast cancer (NEJM 2023;388:1645, DOI: 10.1056/NEJMoa2212856).

--Inclusion criteria: 42 years of age or younger, stage I-III disease, and had received adjuvant endocrine therapy for 18 to 30 months. Three month washout from endocrine therapy prior to attempting pregnancy.
--The primary endpoint was a number of breast cancer events (local, regional, or distant recurrence of invasive cancer, or development of new contralateral invasive disease).
--The primary analysis was planned after 1600 patient-years of follow-up, with a prespecified safety threshold as the occurrence of 46 breast cancer events. Outcomes in the treatment interruption group were compared with those in an external control cohort, consisting of women who met entry criteria for the trial.
--560 women, median age 37 years, median time from breast cancer diagnosis enrollment was 29 months, 93.4% had stage I or II disease.
--Among 497 women who are followed for pregnancy status, 368 (74%) had at least one pregnancy, and 317 women (63.8%) had at least 1 live birth.
--At 1638 patient years of follow-up (median follow-up 41 months), 44 patients had a breast cancer event, a result that did not exceed the safety threshold.
--3-year incidence of breast cancer events was 8.9% in the treatment interruption group, and 9.2% in the control cohort.
--Age was the only factor substantially related to a successful pregnancy, with 85.7% of patients <age 35 becoming pregnant, as compared with 76% of those age 35-39, and 52% of those age 40-42.
--215 women (43.3%) reported using assisted reproductive technology during their pregnancies.
--15.4% of the patients expected to resume therapy had not done so by 48 months after treatment interruption.
--The conclusion was that among select women with previous hormone receptor positive early breast cancer, temporary interruption of endocrine therapy to attempt pregnancy did not confer a greater short-term risk of breast cancer events, including distant recurrence, then the external control cohort.

4. **Follow up** in 6 months.

HISTORY OF PRESENT ILLNESS: The patient presents today to establish care regarding her DCIS. She is in the process of fertility evaluation, as she and her husband have been trying to conceive for several years.

PAST MEDICAL HISTORY:
1. DCIS
2. Depression/anxiety
3. Chronic back pain

PAST SURGICAL HISTORY:
1. Bilateral breast augmentation
2. Left mastectomy

SOCIAL HISTORY: The patient is married. She is a psychotherapist. She is from Venezuela. Of note, her brother is an oncologist, and her father is a plastic surgeon. No tobacco or alcohol use.

FAMILY HISTORY: No noted history of malignancy or blood dyscrasias.

GYNECOLOGIC HISTORY: Menarche age 11. G1, P0. Remains premenopausal. Previously on OCPs.

REVIEW OF SYSTEMS: CONSTITUTIONAL: No fevers, chills, sweats, anorexia, or weight loss. HEENT: No tinnitus, epistaxis, nasal congestion, or sore throat. CARDIOVASCULAR: No chest pains or palpitations. RESPIRATORY: No cough, sputum, hemoptysis, or pleurisy. GI: No abdominal pain, nausea, vomiting, diarrhea, constipation, or change in stools. GU: No dysuria, frequency, urgency, or hematuria. MUSCULOSKELETAL: No arthralgias or myalgias. SKIN: No rashes, bruising, pruritus, or new lumps. NEUROLOGIC: No headache, memory loss, syncope, double vision, dizziness, or paresthesias. PSYCHIATRIC: No insomnia or depression. ENDOCRINE: No heat or cold intolerance. HEME/LYMPH: No fatigue or night sweats. IMMUNOLOGY: No allergy symptoms or recent infection.

PHYSICAL EXAMINATION: SKIN: Warm, dry, and pink mucosa. No rashes, petechiae, or purpura. LYMPH NODES: No palpable cervical, supraclavicular, axillary, or inguinal lymphadenopathy. HEENT: Normocephalic and atraumatic. Pupils equal round and reactive to light. Extraocular movements intact. Sclerae anicteric. Pharynx clear. Neck supple. Normal thyroid. No jugulovenous distention. CHEST: Clear to auscultation and percussion bilaterally. No crackles, wheezes, or rhonchi. BREASTS: LEFT breast status post mastectomy with reconstruction. RIGHT breast status post augmentation. No masses or lesions bilaterally. CARDIOVASCULAR: Regular rate and rhythm. Normal S1 and S2 without S3, S4, murmurs, gallops, or heaves. Peripheral pulses intact. ABDOMEN: Soft and nontender. Active bowel sounds. No hepatosplenomegaly or masses. EXTREMITIES: No cyanosis, clubbing, or edema. NEUROLOGIC: Nonfocal.

Vital Signs:
Height: 63.5 in; Weight: 138 lb; Blood pressure: 103/71, Pulse: 96, Temperature: 96.7 F, Respirations: 18, Pain Scale: 3
Karnofsky: 100% (Date: 05/11/2022)

10/05/2023 Page 2 of 3

Assessment: Painful But Necessary

- **ASSESSMENT:** 75-year-old female with hypertension and diabetes. CBC in January 2021 showed an an anemia, hemoglobin between 10.2 and 11.2, with normal indices. GFR between 38 and 46. Slightly elevated kappa light chain with normal SPEP, and normal iron, B12, and folic acid levels.

  Additional evaluation in May 2021 included a low erythropoietin level for degree of anemia, and elevated free kappa light chains in the urine.

  To evaluate her renal insufficiency, she had a renal ultrasound on 12/15/2022, which showed a nodular focus in the left kidney measuring 4.4 cm. MRI of the abdomen on 12/16/2022 showed a 4.7 cm solid mass in the **LEFT kidney**, concerning for renal cell carcinoma.

  Presented to the ER on 01/08/2023 with abdominal pain in the left lower quadrant.
  --CT showed the 4.8 cm **LEFT** renal mass, unchanged from previous, with a **5.1 cm enhancing intraluminal mass in the mid ascending colon**, with circumferential rectal and short segment rectosigmoid wall thickening and hyperemia, consistent with diverticulitis.
  --Colonoscopy on 01/16/2023 showed a **submucosal, partially obstructing mass in the ascending colon, which appeared to be extraluminal**.
  --Biopsy: undifferentiated poorly differentiated carcinoma, with no positive immunohistochemical stains to determine origin, and no mucosal changes to suggest a colon primary. **Deficient mismatch repair, with loss of MLH1 and PMS2**.

  Due to impending obstruction, proceeded to **RIGHT hemicolectomy** on 02/09/2023: poorly differentiated carcinoma, 5.7 cm, invading into the perirectal soft tissues, with lymphovascular invasion. 1/25 lymph nodes positive; one tumor deposit; high tumor budding. CK7, CK20, chromogranin, synaptophysin, CDX2, GATA3, PAX8, TTF-1, inhibin, MART–1, p40, RCC, S100 negative. CAM 5.2 and cytokeratin AE1/AE3 positive (**pT3, pN1a**).
  --CancerType ID suggested an esophageal/gastric primary, with possibility of small bowel or colon primary.
  --Liquid biopsy revealed mutations in: **BRAF (V600E), CHEK2 (R346H), BRCA2 (K1691fs), PIK3CA (E110del), NF1 (I679fs), ATM (K288fs), ARID1A, and APC; MSI high, high tumor mutational burden (55.75 m/Mb)**. Invitae Common Hereditary panel negative.

  PET scan on 02/28/2023: changes of right hemicolectomy and decreased activity in the left renal mass, with no evidence of metastatic disease.

  Began **pembrolizumab** on 3/16/2023.

  Biopsy of LEFT renal mass, 08/07/2023: Grade 1 **clear-cell renal cell carcinoma**.

Notes: Templates

- We reviewed the data from **CHECKMATE 274**, a phase III trial comparing nivolumab versus placebo in 700 patients with urothelial cancer who either did not receive preoperative chemotherapy, or had residual disease after neoadjuvant cisplatin-based chemotherapy. **The trial population included 21% of patients with upper tract disease (96 renal pelvis, and 53 ureter)** (NEJM June 2021;384:2102).

  Patients were randomized 1:1 to nivolumab 240 mg every 2 weeks or placebo for up to a year of adjuvant treatment. The primary endpoint was disease free survival in all randomized patients, and in patients with a tumor PD-L1 expression of greater than or equal to 1% (PD-L1 positive). Nonurothelial tract recurrence free survival in all patients and in patients with a PD-L1 expression of greater than equal to 1% was a secondary endpoint.

  The results at the update in February 2023 nivolumab vs placebo:
  -median disease free survival (3 years of follow up):
  --ITT: 22 months vs 10.9 months
  --PDL1 positive: 52.6 months vs 8.4 months

  -disease-free survival at 12 months:
  --ITT: 63.5% vs 46.9%
  --PDL1 positive: 67.6% vs 46.3%

  -median distant metastasis free survival:
  --ITT: 41.1 months vs 29.3 months, HR 0.73
  --PDL1 positive: NR vs 20.7 months.

  -nonurothelial tract recurrence free survival:
  --ITT: 65.8% vs 50.6%
  --PDL1 positive: 69.2% vs 47.1%

  -median nonurothelial tract recurrence free survival:
  --ITT: 26 months vs 13.7 months
  --PDL1 positive: NR vs 10.8 months

  Treatment-related adverse events grade 3 or higher: 17.9% versus 7.2%, including two treatment related deaths from pneumonitis in the nivolumab group.

  In a subgroup analysis, nivolumab was associated with a disease-free survival advantage in all subgroups, including age, sex, performance status, nodal status, use of prior cisplatin based chemotherapy, and PD-L1 status.

Efficiencies - Clinic

- SCRIBES: AGONY OR ECTASY?
  - I do not have a scribe, but EMR efficiency with templating and chart prep allow me to function without one
- Completion of records is still the single greatest time challenge
- Templates save me time, but take time as well

“Extra Jobs”

- Administrative and research responsibilities
  - I believe there has already been a presentation on saying no. There should always be more “NO”s than ”YES”s.
- Consider your long term goals
  - Do you clearly see education or administration in your future? If so, these responsibilities are a direct investment in that future. If not, they are a labor of requirement or love.
- Account for financial impact vs clinical time
  - If your focus is on clinical work, and will continue to be on clinical work, then choose accordingly.
  - Most specialties are paid by the hospital for coverage, hematology/oncology not included.

Efficiencies - Collaboration

- Chart messaging
- Text and email
- Finding collaborators at multiple sites

NEVER HAVE I EVER...

ACHIEVED PERFECT WORK/LIFE BALANCE

All The Boys

Achieving Work/Life Balance

No one can answer this question!

Outsource things I do not like or am not good at

ONLY SET

Use every minute of uninteresting downtime

Share responsibilities

ACHIEVEABLE GOALS

Invite your circle into your experience

Schedule time off a year in advance

University of Nebraska Medical Center

Bio Ascend™

“I Think It’s On Tuesday”

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Shoes

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THANK YOU