

207 General Poster Session C (Board #C21), Fri, 12:00 PM-1:30 PM

Improvement in the quality of care for patients with locally advanced breast cancer through implementation of an integrated electronic care pathway. Presenting Author: S. Hogeveen, St. Michael's Hospital, Toronto, ON, Canada

Background: Locally advanced breast cancer (LABC) refers to the most advanced stage of non-metastatic tumours with an incidence of approximately 10% in newly diagnosed breast cancers. Currently, for optimal care, patients with LABC require a multidisciplinary approach including coordinated planning with medical, surgical and radiation oncologists. We created an interactive electronic care pathway and self populating quality assurance database at St. Michael's Hospital (SMH) to facilitate multidisciplinary teams to track LABC patient histories and patient treatments in order to coordinate therapy effectively and expedite care (LABC E-PATH). **Methods:** This is an observational before-and-after cohort study of patients with LABC with a retrospective review pre-implementation and prospective collection of clinical data post-implementation. The completeness of workup and the timeliness of treatment pre- and post-implementation of the LABC E-PATH in May 2010 were assessed. **Results:** With the implementation of the LABC E-PATH in May 2010 at SMH, the delay between the identification of the patient as LABC and their referral to a medical oncologist for treatment for their LABC decreased from a median of 9 days pre-implementation, (range 0-780 days) to 1 day post-implementation, (range 0-52 days). The time between referral to medical oncologist and the start of their chemotherapy treatment decreased from a median of 12 days to 9 days (pre-implementation: range = 4 to 494, post-implementation: range = 0 to 39). All pre-treatment staging was completed faster post-implementation of the LABC e-path than pre-implementation, expediting time to initiation of chemotherapy. The number of referrals for LABC to the SMH program increased from < 1 patient per month to 5 patients per month post-implementation. **Conclusions:** The LABC E-PATH at SMH has achieved its goal of expediting care for this patient population. It has also ensured timely and appropriate resource allocation. This unique system may also be applied to other disease sites where coordination of a multidisciplinary team is critical for appropriate patient management.

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Geographic disparity in the use of surgical management (SM) and radiotherapy (RT) for female breast cancer (BC) in Wisconsin (WI). Presenting Author: A. Ho, Clinical Research Center, American College of Radiology, Philadelphia, PA

Background: The WICaRE Program is a part of the cross sectional Patterns of Care Study-Breast and Prostate (PoC-BP) that sought to evaluate the patterns of BC care in the state WI and to identify areas for potential improvement in data collection and factors associated with variation in care. This study was to examine the geographic disparities in SM and the use of RT in female BC patients diagnosed in WI in 2004. **Methods:** The Wisconsin Cancer Reporting System (WCERS) receives reports from 130+ facilities. Information of patient (disease status, sociodemographic, treatment, county of residence) was obtained from cancer registries and supplemental data was reabstracted from medical charts across 66 counties. Geographic regions were counties grouped by WI Dept. of Health Services (DHS) as Northeastern (NE), Northern (N), Southeastern (SE), Southern (S), Western (W). **Results:** A total of 1037 cases were reported. 25% age 20-49, 49% age 50-69, and 28% age 70+; Caucasian had 82%, black 10% and others 8%. 34% had T1 stage, 9% T2, 4% T3+, and 53% TX-T0/unknown stage. 46% had reported mild comorbidity, 9% had moderate or severe comorbidity. Majority (73%) lived in the Metropolitan Statistical Area (MSA). 29% patients from NE region, 10% from N, 36% SE, 17% S and 8% W. Patients in the S and W had significantly lower % who received RT (46 and 48% respectively) than those in NE (61%), N (62%) and SE (63%), p=0.01; % mastectomy (MA) by regions were 43% (NE), 42% (N), 33% (SE), 47% (S) and 35% (W), p=0.009. Multivariate models adjusting for disease status, comorbidity, and sociodemographic factors showed that patients in MSA region were more likely to have RT compared to those in non-MSA (odds ratio, OR=1.66, 95%CI=1.14-2.40), but those in S were less likely than those in SE (OR=0.59, 95%CI=0.38-0.91). Patients in MSA had a decreased likelihood of undergoing mastectomy. NE (OR=1.6, 95%CI=1.08-2.29) and S (OR= 2.04, 95%CI=1.31-3.17) had significantly higher odds of having MA than those in SE. **Conclusions:** This study showed evidence of geographic disparity in medical care for BC patients in Wisconsin. Identifying factors mediating this disparity will help in developing appropriate treatment options and improving outcomes.

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Time interval as a quality measure: What is our baseline prior to nurse navigator implementation? Presenting Author: M. Amin, Emory University School of Medicine, Atlanta, GA

Background: There are various outcome measures to evaluate the quality of multidisciplinary care for breast cancer patients. The National Consortium of Breast Centers defines quality of breast cancer care as accurate evaluation and appropriate services in a timely manner. In a tertiary academic center a diverse referral pattern possibly influences time to treatment. We choose to examine two outcome measures before the start of a nurse navigator: Time from initial diagnosis to first consultation and if the pretreatment consultation for those receiving neoadjuvant chemotherapy or hormonal therapy included all subspecialists. **Methods:** Electronic medical records of female patients with breast cancer seen during January-June 2010 were reviewed. Patients with stage IV breast cancer were excluded. **Results:** 150 patients were divided into 4 categories: external pathology consult (B1), internally diagnosed with a primary care physician (PCP) at our institution (B2), evaluated by a surgical oncologist before the biopsy (B3), and internally diagnosed with PCP outside of the institution (B4). For B2, B3 and B4 we examined the time intervals to first surgical oncology appointment after diagnosis as shown in the table. For all patients (n=10) who received neoadjuvant therapy, 1 patient saw a surgical oncologist, medical oncologist and radiation oncologist, 9 patients saw 2 subspecialties prior to initiation of first treatment. **Conclusions:** Patients are seen within an average of 2 weeks whether they are diagnosed internally (B2, B3) or externally (B4). The group seen by a surgical oncologist prior to biopsy (B3) were seen sooner. For the patients receiving neoadjuvant therapy, 10% saw all 3 specialties prior to initiation of therapy. In July 2010 a nurse navigator was added to the care team. With this new position, our goal is to decrease the time from biopsy to visit by 33% and have 100% of patients receiving neoadjuvant therapy evaluated by all 3 specialists prior to treatment. Our intent is to quantify the effect of a nurse navigator in a large academic center as a quality metric in improving care.

	B2 (n = 19)	B3 (n = 20)	B4 (n = 17)	All patients (n = 56) B2 + B3 + B4
Time (days)	14	9	14	12
Mean (range in days)	3-22	2-21	6-33	2-33

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Change in patient-reported outcomes over time from breast cancer diagnosis. Presenting Author: C. E. Hill-Kayser, Hospital of the University of Pennsylvania, Philadelphia, PA

Background: Breast cancer survivors may be at risk for significant late effects after treatment. Understanding the patterns of change over time of patient reported outcomes (PRO) is often very challenging. **Methods:** Patient-reported data was gathered via a convenience sample frame from breast cancer survivors utilizing a publically available, free, Internet-based tool for creation of survivorship care plans. Available at www.livestrongcareplan.com and through the *OncoLink* website, the tool allows survivors to enter data regarding diagnosis, demographics, treatments received, and late effects experienced, and provides them with customized guidelines for future care. All data has been maintained anonymously with IRB approval. **Results:** 1,145 breast cancer survivors were queried with regard to PRO. Median age at diagnosis (dx) was 49 yrs, and median current age 52 yrs. Of users, 98% reported having had surgery; of these 56% underwent mastectomy and 49% lumpectomy (5% both). Similarly, 59% underwent sentinel LN biopsy, and 47% axillary dissection. Of the same cohort, 88% received chemotherapy and/or hormonal treatment, and 70% radiation therapy. The median time from dx until use of the care plan tool was 2 years (range 0-33 years). Late effects reported by survivors ≤ 2 and > 2 years from diagnosis are shown (see table). Overall, survivors ≤ 2 years from dx were more likely to note changes in skin color or texture; those > 2 years from diagnosis were more likely to note osteopenia, lymphedema, and sexual changes. Patient reported cognitive changes, arm pain/numbness/tingling, and loss of shoulder flexibility did not differ between the two groups. **Conclusions:** This anonymous tool uses a convenience sample frame to gather PRO after breast cancer diagnosis/ treatment. PRO varied significantly with time since dx, with more late effects reported > 2 years from dx. This information may be of use during patient counseling and survivorship care delivery.

PRO	Early (≤ 2 years from Dx) n = 715	Late (> 2 years from Dx) n = 430	p value
Osteoporosis/penia	21%	43%	< 0.001
Cognitive changes	64%	63%	0.98
Lymphedema	30%	34%	< 0.001
Arm pain/numbness/tingling	56%	60%	0.2
Skin color/texture change	60%	49%	0.001
Loss of shoulder flexibility	31%	36%	0.3
Sexual changes	45%	62%	< 0.001