categorized into low grade and high grade. Two-sided non-parametric statistical analyses were performed using the SAS v. 9.3 (SAS Institute, Cary, NC). **Results:** Expression of KOC, p16, pVHL and Ki67 was significantly different between low and high grade tumor categories. No significant difference was observed for CD117. High grade tumors showed greater expression of Ki-67 (OR=13.85, 95% CI 3.34-57.47, p=0.0003), p16 (OR=3.52, 95% 1.75-7.11, p=0.0004) and KOC (OR=4.24, 95% CI 1.88-9.56, p=0.0005) while pVHL expression was less in high grade tumors (OR=0.31 95% CI 0.12-0.84, p=.022). We detected a statistically significant probability of joint overexpression of three of the biomarkers [p16 and KOC and Ki_67] in small cell carcinoma relative to atypical carcinoids (OR=2.53. 95% CI 1.24-5.17, p=.011). **Conclusions:** Findings from this pilot project suggest that Ki-67, KOC and p16 are an effective antibody panel in differentiating high grade neuroendocrine carcinoma from low/intermediate grade neuroendocrine carcinoma.

Keywords: Distinguishing grades of carcinoma, Biomarkers, Diagnostic accuracy

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C-C3-01:

Adolescent and Young Adult Cancer Survivors in the Cancer Research Network

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Background and Aims: Adolescents and young adults (AYA) with cancer face unique challenges related to their stage of physiological and psychosocial development, yet their diagnosis, treatment, and survivorship experiences remain poorly understood. To ascertain the CRN's potential to address these issues, we examined the characteristics of and available follow-up time among AYA diagnosed with cancer at two CRN sites. **Methods:** Using the CRN's Virtual Data Warehouse cancer registry files, we identified all individuals diagnosed with their first primary invasive cancer at ages 15 to 39 years from 1992 to 2007 at one site and 1996 to 2007 at the other. Next, we extracted demographic, vital status, and tumor data, categorizing tumor type using the combined childhood (ICCC) and adult (ICD-O3) classification approach from the SEER 2006 AYA cancer epidemiology report. We used administrative data to calculate post-cancer enrollment through September 2009. To address potential variations in enrollment patterns and pediatric to adult care transitions, we stratified the vital status and follow-up data into ages 15 to 24 years and 25 to 39 years. **Results:** We identified 7,121 AYA with incident cancer, of whom 4,424 (62%) were female and 2,820 (40%) were non-white. Common tumor types included breast (n=1,391, 20%); lymphoma (n=996, 14%); thyroid (n=858, 12%); genital (female, n=798, 11%; male, n=720, 10%); leukemia (n=327, 5%); and central nervous system (n=315, 4%). Among the 1,194 (17%) individuals diagnosed at ages 15 to 24 years, 955 (80%) were alive through the follow-up period; the median enrollment after diagnosis was 3.5 years (interquartile range [IQR] 1.5 to 6.6). Among the 5,927 (83%) individuals diagnosed at ages 25 to 39 years, 4,682 (79%) were alive through the follow-up period; the median enrollment after diagnosis was 4.2 years (IQR 1.7 to 8.0). **Conclusions:** Within two CRN sites we were able to identify a sizable, racially diverse group of AYA cancer survivors who remained enrolled and thus could be followed for several years after diagnosis. The CRN provides a unique setting in which to explore contemporary AYA cancer survivorship issues in the short-term, collect prospective long-term data, and test relevant interventions.

Keywords: Adolescent and young adult cancer, Survivorship, Cancer treatment and diagnosis

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C-C3-02:

Ethnic Differences in Interval Diagnosed Breast Cancers in South Carolina

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Background/Aims: The incidence of breast cancer (BrCA) among African-American (AA) women is lower than European-American (EA) women, yet their mortality rate is twice as high. Numerous hypotheses have been proposed to explain this disparity ranging from the biological to factors related to access to care. The relatively under-studied area of interval-diagnosed BrCAs, tumors which arise between regular mammograms and represent one of the most aggressive types of tumors, among AA women may represent such a biological factor. The goal of this investigation was to describe and compare detection patterns of BrCAs and their related histopathology among AA and EA women in South Carolina. **Methods:** A longitudinal file on 65,766 women was created with multiple clinic visits representing each mammography or diagnostic service performed and the final findings of these procedures. Women with a malignancy diagnosis were classified as cases provided they had an abnormal screening and were subsequently found to have histopathologically-confirmed malignancies. Interval cancers were defined as those that occurred between regular screenings of the American Cancer Society recommended 1-2 years. After electronic identification of the interval cancers, the actual mammography films from each interval cancer case were combined with a random sampling of negative and positive films and underwent a "blinded" review by a radiologist. Chi-square and t-tests were used to assess for differences between AA and EA women and between screen-detected and interval-detected malignancies. Polytomous regression was also employed to describe and compare patterns of BrCA detection among our cohort of women. **Results:** Among the study population, AA women were more likely to be younger than EA women. AA women were also more likely to have poorly differentiated tumors and to have interval-detected malignancies. Variables found to be significantly associated with interval cancers included age and marital status. Furthermore, AA women were found to be at a 1.8 times higher risk of interval-detected cancers than EA women. **Conclusions:** Taken as a whole, these results indicate that the characterization of interval-detected tumors among AA women may prove to be a promising avenue to help explain ethnic disparities in BrCA and offer an opportunity for medical intervention such as increased screening guidelines.

Keywords: Breast Cancer, Ethnic disparities, African American women

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C-C3-03:

Indicators of Lifetime and Annual Mammography Screening in the Brazos Valley

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Background and Aims: Early detection and treatment of breast cancer is associated with reduced cancer mortality. While these preventive strategies are still seen as beneficial, new guidelines have recently been announced for the recommended timing of mammogram screenings for various age groups. This study examines patterns of mammogram use in 2006 and examines the relationship between demographic, health status, and healthcare access factors. **Method:** Survey instruments were mailed to a random sample of households in the seven county region of the Brazos Valley in Texas (n=1,935). Data were analyzed from a sample of 617 adult females age 40 and older. Study variables include: age groupings (i.e., 40-49, 50-74), education, race/ethnicity, residence rurality, self-reported health status, depression scale scores (5 items, a=0.802), having had a visit with a medical