provide serial blood samples, take part in side effects assessments, and wear a hot flash monitor. Accrual of study participants will continue through 2007. Preliminary results will be presented.

Results will guide development of improved or novel interventions for alleviating hot flashes in women with breast cancer. If serotonin is found to play a role in hot flashes, interventions may be developed to target the central serotonin system behaviorally (e.g., diet) or pharmacologically (e.g., novel drugs). If serotonin manipulation does not affect hot flashes, findings will guide future research on non-serotonin related etiologies and interventions.

Funding Sources: Department of Defense BC043199

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COGNITIVE FUNCTION PRIOR TO AND FOLLOWING CHEMOTHERAPY TREATMENT IN PATIENTS WITH LUNG CANCER. Erna Wilkie, BN, RGN, Cancer Cert (ENB237), University of Dundee, Dundee, Great Britain; Sinead Rhodes, PhD, MLitt, BA (Hons), University of Stirling, Stirling, Great Britain; Mitchell Stewart, MB, ChB, FDSRCPS, MRCPsych, NHS Tayside, Dundee, Great Britain; Elaine Rankin, BSc, MB, ChB (Hons), MD, FRCP, FRCPE, University of Dundee, Dundee, Great Britain; and Ian Ried, MB, ChB, BmedBiol, PhD, MRCPsych, University of Aberdeen, Aberdeen, Great Britain.

While a growing body of evidence suggests that chemotherapy treatment is associated with a variety of cognitive impairments, studies have rarely assessed cognitive function prior to and during systemic treatment for lung cancer, or included a patient control group for comparison.

To identify whether cognitive function is related to a diagnosis of cancer per se, the present study compared the cognitive function of lung cancer patients before, during and after treatment with that of a matched control group of chronic obstructive pulmonary disease (COPD) patients.

Patients with newly diagnosed advanced lung cancer and a group of patients with COPD were demographically matched for age, sex, IQ, O2 saturation and smoking history. Patients performed a range of cognitive tasks from the Cambridge Neuropsychological Test Automated Battery (CANTAB), an executively validated battery, chosen because tasks are differentially sensitive to dysfunction in specific areas of the brain including frontal, temporal and amygdalo-hippocampal regions.

Data is reported here from the Spatial Working Memory and Stockings of Cambridge tasks, involving assessment of working memory and planning respectively. Repeated measures ANOVA, was used to compare the performance of the two patient groups prior to chemotherapy treatment and across the 6 and 12 week testing session. Patients with lung cancer showed impaired planning on the Stockings of Cambridge task prior to chemotherapy, and this continued across the 12-week period. Chemotherapy did not further impair this deficit in planning shown by the lung cancer patients nor did their planning ability improve over the 12-week period. While patients with lung cancer showed no impairment in working memory at baseline testing, treatment with chemotherapy was associated with impairment on the Spatial Working Memory task.

This data suggests that both a diagnosis of lung cancer and chemotherapy treatment, are associated with impairments in cognitive function. Importantly, a diagnosis of lung cancer and chemotherapy treatment, are associated with differential selective impairment in cognitive function, which may have significant implications for the ability of patients to engage in efficient decision-making plus dealing with and retaining information regarding their illness and its treatment.

Funding Sources: Chief Scientist Office, Scottish Executive, Scotland, UK

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SEROTONIN AND COGNITIVE DYSFUNCTION IN BREAST CANCER SURVIVORS. Diane Von Ah, PhD, RN, and Janet Carpenter, PhD, RN, Indiana University, School of Nursing, Indianapolis, IN; and Todd Skaar, PhD, Indiana University, School of Medicine, Indianapolis, IN.

Significance of the study: Although cognitive dysfunction is a prevalent, persistent, and disruptive problem for many breast cancer survivors, little research has examined its etiology.

Purpose: We are examining the role of serotonin in cognitive dysfunction. Hypotheses are (1) alterations in central serotonin levels induce cognitive dysfunction in women with breast cancer and (2) variability in response to serotonin manipulation can be partly explained by genetic variations in serotonin receptors and transporters.

Scientific Framework: A biobehavioral model using the acute tryptophan depletion paradigm is being used.

Methods and Analysis: This is a within-subjects, double blind, placebo controlled, crossover study. 30 female breast cancer survivors who are >1 month but < 5 years post-treatment (surgery, radiation, chemotherapy) for non-metastatic breast cancer will be recruited from a cancer center. Consenting participants will receive acute tryptophan depletion based on published procedures or a control condition in random order during two test days at the General Clinical Research Center. On one day, participants will ingest a concentrated amino acid drink and encapsulated amino acids (no tryptophan) according to published procedures that have been shown to have specific effects on serotonin within 4.5 to 7 hours. On the other day, women will ingest a control drink with no effects on serotonin. Serial venous blood sampling is used to monitor response to each condition and to investigate genetic polymorphisms that may affect response. Cognitive dysfunction will be measured at the same time each test day using standardized neuropsychological tests. Data will be analyzed using descriptive statistics, MANOVA for overall differences between groups and MANCOVA to adjust for potential covariates such as age, education, previous medical treatment and current medications. Our main hypothesis will be supported if cognitive dysfunction is exacerbated during acute tryptophan depletion.

Findings and Implications: Results will help guide the development of improved or novel interventions targeting the central serotonin system either behaviorally (e.g., diet) or pharmacologically. Null results will be equally as useful in guiding future research on non-serotonergic etiologies and interventions. Findings will ultimately be used to reduce cognitive dysfunction and improve quality of life breast cancer survivors.

Funding Sources: Funded in part by ONS Foundation Postdoctoral Fellowship Award (RE02), a grant from the General Clinical Research Center, CReFF Program Award, Indiana University; and grant T32 NR007066 from the National Institute of Nursing Research, National Institutes of Health to Indiana University

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QUALITY OF LIFE FOR MEN RECEIVING A SECOND TREATMENT FOR PROSTATE CANCER: DATA FROM CAPSURE. David Latini, Baylor College of Medicine and MEDVAMC, Houston, TX; Shelley Arredondo, MD, MPH, University of California, San Francisco (UCSF), San Francisco, CA; Natalia Sadetsky, MD, MPH, PhD(c), UCSF Urology, San Francisco, CA; Jun Kawakami, MD, MSc, Queens University, Kingston, Canada; and Peter Carroll, MD, UCSF Urology, San Francisco, CA.

We assessed the impact of second treatment on health-related quality of life (HRQOL) for men with prostate cancer. This is an important issue because second treatment resulting from PSA recurrence has the potential to further negatively impact HRQOL and affect the overall value of treatment

We build on the results of 2 small cross-sectional studies by examining HRQOL longitudinally for RP patients without recurrent disease compared with RP patients who received a second treatment for recurrent disease. This longitudinal approach allowed us to examine HRQOL before initial treatment for PCa as well as post-recurrence to understand whether men who will eventually recur and receive a second treatment present with poorer baseline HRQOL.

We report descriptive results from a longitudinal, observational national registry of men with localized prostate cancer.

We compared differences in HRQOL before and after second treatment for men who had asymptomatic PSA recurrence (N=175) with those who did not have biochemical failure (N=722). We examined HRQOL at baseline with a model adjusting for baseline clinical and sociodemographic characteristics. Longitudinal changes in HRQOL were evaluated using a repeated-measures approach for each HRQOL domain. Men in this analysis (N=897) had localized disease, initially underwent radical prostatectomy (RP) monotherapy, and completed at least one pre- and post-RP HRQOL questionnaire. The Medical Outcomes Survey Short Form-36 and UCLA Prostate Cancer Index were used to measure HRQOL. Associations between patient groups and time interval on HRQOL were analyzed using repeated measures.

Men who received a second treatment presented with more severe disease before RP and had worse general HRQOL. Although HRQOL differed significantly over time for the 2 groups, most domains for the second treatment group improved or remained stable until 15 months before second treatment, at which point they declined. Scores in the Sexual Functioning and Role-Physical domains showed both clinically and statistically significant patterns of decline over time. HRQOL is affected following second treatment but starts to decline approximately 1 year before second treatment. Not all aspects of HRQOL declined at the same rate, so patients should be counseled that certain domains may be affected more by additional treatment.

Funding Sources: National Institutes of Health/National Cancer Institute University of California-San Francisco SPORE Special Program of Research Excellence P50 C89520

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THE RELATIONSHIP BETWEEN THE COLORECTAL CANCER PATIENT'S PERCEPTION OF FEAR, HOPELESSNESS, AND ADHERENCE WITH ANTIDIARRHEA MEDICATIONS. Laura Ford, BSN, RN, Consultants in Blood Disorders and Cancer, Louisville, KY; Julie Ferreira, BSN, RN, Norton Suburban Hospital, Louisville, KY; Yolonda Nunn, BSN, RN, and Michelle Savage, BA, AAS, RN, University of Louisville Hospital, Louisville, KY; Mary Texas, BSN, RN, Jefferson County Health Department, Louisville, KY; and Ann Lyons, MSN, DNS, RN, Spalding University, Louisville, KY.

Cancer treatment-induced diarrhea can have devastating effects on patients, negatively impacting their physical, emotional, and psychosocial well-being. These issues can intensify over time, and result in non-compliance with prescribed medical regimes, and undesired therapeutic outcomes. Nonadherence of antidiarrhea medications can lead to complications such as excessive diarrhea, dehydration, weight loss, increased risk for infection, electrolyte imbalance, and may lead to cancer treatment modifications or delay treatment completion.

The purpose was to examine the relationship between the perception of fear, hopelessness, and adherence with antidiarrhea medications in colorectal cancer patients receiving chemotherapy in an outpatient setting.

The Lazarus Theory of Stress and Coping Model was used to guide this quantitative, cross-sectional, descriptive, correlational, nonexperimental study.

The nonprobability sample (N =49) recruited from a local metropolitan outpatient oncology office consisted of patients diagnosed with colorectal cancer, currently taking a prescribed or recommended anti-diarrhea medication and actively receiving cancer treatment. The Beck Hopelessness Scale, and the Medical Outcomes Study (MOS) General Adherence Items Questionnaire were used to collect data in the study. In addition, a researcher developed global fear question and a twelve- item demographic questionnaire were utilized.

SPSS Version 14.0. was used to analyze the data. Adherence to anti-diarrhea medications and hopelessness was not significant (r=.664; p=.663). A weak positive correlation was found between fear and adherence to antidiarrhea medications (r=.270; p=.064). Note the findings only approached significance due to the small sample size. Significance between adherence to antidiarrhea medications and demographics variables such as age (r=.359; p=.011), male versus female (t=2.38, df=46, p=.021), number of days experiencing loose stools versus high levels of hopelessness (r=.332; p=.020) and martial status (F(2,44)=10.79, p>.001) were noted. The results of the study indicate the importance of examining the psychosocial dynamics involved in the medical treatment of colorectal cancer patients, specifically emotions. Information obtained from this may help healthcare professionals in educating colorectal cancer patients on the importance of adherence with prescribed anti-diarrhea medications, by providing appropriate interventions which may include emotional support, empathetic listening, and referrals to counselors and support groups.

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ADOLESCENT BARRIERS TO PAIN MANAGEMENT. Suzanne Ameringer, MS, RN, Sandra Ward, RN, PhD, FAAN, Ronald Serlin, PhD, and Susan Hughes, MS, RN, University of Wisconsin–Madison, Madison, WI.

Patient-related barriers to pain management are one of the determinants of poor pain management in adults but these barriers have rarely been examined in adolescents. Barriers interfere with critical coping efforts such as reporting pain and using medications. Evidence suggests that adolescents with cancer have similar barriers to pain management as adults, such as fear of addiction; and they may have unique barriers due to their status as minors. For example, they may be reluctant to report pain if they are concerned that their social activities will be restricted. The Adolescent Barriers Questionnaire (ABQ) was recently developed to measure these barriers.

The aims of this work in progress are to (a) conduct a factor analysis of the ABQ, (b) describe adolescent barriers, and (c) examine barriers by age and gender.

The framework is based on a stress and coping model that links beliefs to coping and then to outcomes.

The projected sample will be approximately 150 adolescents, ages 12 to 17, recruited from Wisconsin, diagnosed with cancer within the past 4 years. Measures include the ABQ and background information. The ABQ is a 45-item, self-report instrument designed to measure the extent to which adolescents hold beliefs about cancer pain, reporting pain, and using analgesics. Participants rate the extent to which they agree with each item on a scale from 0 (do not agree at all) to 5 (agree very much). Higher scores indicate stronger barriers. Background information will be assessed (e.g. age, gender, race, diagnosis). A factor analysis of the ABQ and the mean (SD) and internal consistency of the factors and total scores for the ABQ will be conducted, as well as the median, mode, range of scores, skewness, and kurtosis of the instrument. A correlation test of age and barriers and a test of mean differences between genders will be conducted.