



iuscc research news

August 2009

Marital status affects cancer patients' survival rates

Among unmarried cancer patients, those who are separated at the time of diagnosis do not live as long as widowed, divorced, and never married patients, according to a new study to be published in the Nov. 1, 2009, issue of *CANCER*, a peer-reviewed journal of the American Cancer Society.

The authors of the study -- led by Gwen Sprehn, PhD, of the IU School of Medicine and including IU Simon Cancer Center members **Peter A.S. Johnstone**, MD, MA, and **Andrew Saykin**, PsyD -- say its results suggest that the stress associated with marital separation may compromise an individual's immune system and lead to a greater susceptibility to cancer.

Research has shown that personal relationships have a significant role in physical health -- specifically that good relationships are beneficial and poor relationships are deleterious. Also, many studies of cancer prognosis have found that patients who are married live longer than those who are single. However, little information is available regarding differences in survival among the various types of people who are unmarried.

To look for trends in cancer survival among patients who are separated, divorced, widowed, and never married, the researchers analyzed data from the Surveillance Epidemiology and End Results (SEER) database, a population-based cancer registry in the United States.

The researchers assessed the five- and 10-year survival rates of 3.79 million patients diagnosed with cancer between 1973 and 2004. They found that married patients had the highest five- and 10-year survival rates, at 63.3 percent and 57.5 percent, respectively.

At the other end of the spectrum, separation carried the poorest survival outcome. Specifically, the five- and 10-year survival rates for separated patients were 45.4 percent and 36.8 percent, respectively. The five- and 10-year survival rates of widowed patients were the next lowest, at 47.2 percent and 40.9 percent, respectively; for divorced patients, the respective survival rates were 52.4 percent and 45.6 percent; and for never married patients, they were 57.3 percent and 51.7 percent.

The authors hypothesized that the stress of separation may compromise the immune system, creating a greater vulnerability to cancer. While additional research is needed, the researchers say certain interventions might help patients today. For example, psychological interventions to reduce stress may impact the immune system and improve survival.

"Patients who are going through separation at the time of diagnosis may be a particularly vulnerable population for whom intervention could be prioritized," Sprehn said. "Identification of relationship-related stress at time of diagnosis could lead to early interventions which might favorably impact survival. Ideally, future research will study marital status in more detail over time and also address individual differences in genetic profile and biomarkers related to stress, immune, and cancer pathways in order to determine mechanisms which might underlie this possible critical period for cancer pathogenesis."



iuscc research news

August 2009

Core Spotlight

The Clinical Research Office (CRO) is a shared resource available to all clinical investigators of the IU Simon Cancer Center whose services assist and support the efficient conduct of adult and pediatric trials.

The mission of the CRO is to provide the necessary support and resources to facilitate the conduct of quality clinical research by IUSCC translational and clinical investigators.

The experienced support staff of the CRO provides essential services, which enable the clinical investigator to effectively conduct clinical trials in an increasingly complex regulatory and financial environment.

The CRO provides a comprehensive range of services, including a protocol development writer that collaborates with investigators, biostatistics, and the IUSCC correlative infrastructure from letter of intent (LOI) to Scientific Review Committee (SRC) submission and approval. Initial consulting services are free of charge and include Investigational New Drug (IND) and Investigational Device Exemption (IDE) applications and management, and funding assistance.

The complexity of both clinical and translational trials continues to increase at a time when the conduct of trials is under greater regulatory scrutiny. The CRO provides the correlative infrastructure, including a coordinator and biospecimen management as a centralized service. Research lab specimens are managed by the CRO correlative team, including processing, storage, and shipping.

There is a need to maximize the information yield of clinical trials and to assure human safety. The CRO facilitates the conduct of a successful clinical trial program of this magnitude by providing a professionally diverse and talented staff and a highly efficient organization.

The IU Simon Cancer Center Clinical Research Office provides the following services:

- facilitates the review of clinical research protocols for scientific merit by the SRC
- provides comprehensive clinical trials management services to clinical investigators of the cancer center for protocol development and conduct

- assures a highly-trained and fully-supervised clinical research staff
- provides administrative support and supervised audit staff via the Clinical Trials Monitoring Committee
- facilitates appropriate integration of the Biostatistics and Data Management Core into all aspects of the development, conduct, and analysis of clinical trials
- oversees the activities of information technology via the ONCORE database and interactions with the Biostatistics and Data Management Core

For more information, contact Kerry Bridges, MBA, RN, administrator of the adult CRO, at 274-2552.



August 2009

News Briefs

Explore IUSCC on Flickr, YouTube, Facebook

The IU Simon Cancer Center is in the beginning stages of going down the social media path. Currently, you can find the IUSCC on [Flickr](#), [YouTube](#), and [Facebook](#). (If you can't access these sites because of the Clarian firewall, use the [IUPUI VPN](#). You'll need to register on Facebook to view the IUSCC pages.) Encourage your patients and others to become "fans" of these pages to help enhance the cancer center's online presence as well as educate the public about relevant cancer information.

Cancer-Free Lungs run/walk is Sept. 26

Cancer-Free Lungs, formerly Lungs for Life Inc., is gearing up for its 2009 5K run/walk and one-mile stroll on Sept. 26. Early registration is now through Sept. 7. [See full details.](#)

Cancer center members in the news

- In the July 13 online issue of the *Journal of Thrombosis and Haemostasis*, **Mervin Yoder**, MD, wrote, "There is no specific marker to identify an endothelial progenitor cell (EPC) and this deficiency is restricting the ability of an entire field of research in defining these cells. We will review current methods to define EPC in the human system and suggest approaches to define better the cell populations involved in neoangiogenesis. PubMed was used to identify articles via the search term 'endothelial progenitor cell' and those articles focused on defining the term were evaluated.



Yoder

The only human cells expressing the characteristics of an EPC, as originally proposed, are endothelial colony forming cells. A variety of hematopoietic cells including stem and progenitors, participate in initiating and modulating neoangiogenesis." Yoder and colleagues concluded, "Future studies must focus on defining the specific hematopoietic subsets that are involved in activating, recruiting, and remodeling the vascular networks formed by the endothelial colony forming cells."

- **Michael Robertson**, MD, delivered a poster presentation, "A Phase I Trial Evaluating the Safety and Biological Activity of Ibixtadecin (rhIL-18) in Combination with Rituximab in Patients with CD20+ B Cell Non-Hodgkin's Lymphoma," during the recent ASCO annual meeting. [Read the abstract.](#)
- **Victoria Champion**, RN, DNS, FAAN, and colleagues compared

an educational intervention that made use of an automated telephone symptom management (ATSM) system with a behavioral intervention that was delivered by cancer nurses (nurse-assisted symptom management, NASM), [American Journal of Hematology Oncology](#). The findings from the breast cancer subsample were consistent with the overall sample of patients with solid tumor cancer and favored the ATSM arm when analysis were conducted for each subtype. The ATSM involved less time to implement (around 19 minutes per contact vs. 42 minutes averaged over six contacts) when compared with the NASM. Implementation of the ATSM cost less than the NASM arm and required no nurse time to complete. Among breast cancer patients with metastatic disease, the ATSM arm proved more effective than telephone strategies tailored by nurses. Results of the study may not be generalized to minority patient populations due to the fact that the sample patients were primarily highly educated and white. The ATSM deserves further research to establish mechanisms through which patients implement interventions for symptom management and to determine its effectiveness on minority patient populations.



Champion

- In the Aug. 21 online edition of *American Journal of Clinical Pathology*, **Liang Cheng**, MD, and colleagues wrote, "Cystoprostatectomy specimens obtained from patients with bladder cancer provide a unique opportunity to assess the features of silent prostate adenocarcinoma (PCa). The whole-mount prostate sections of 248 totally embedded and consecutively examined radical cystoprostatectomy (RCP) specimens were reviewed to determine the incidence and features of incidentally detected PCa. Of the 123 incidentally detected cases of PCa, 100 (81.3%) were considered clinically insignificant. Incidentally detected PCa is frequently observed in RCP. The majority are clinically insignificant."



Olympic swimmer and testicular cancer survivor Eric Shanteau (second from left) rings the New York Stock Exchange Closing Bell Aug. 19 along with **Lawrence Einhorn, MD**, (far right) and **George Sledge, MD** (far left). The ASCO Cancer Foundation and ASCO celebrated the foundation's 10th anniversary by ringing the Closing Bell. Einhorn is a foundation board member and former ASCO president; Sledge is currently president-elect of ASCO. [Watch a replay of the event.](#)

New members

Chunyan He, ScD

Associate member
Cancer Control and Breast
Cancer

James Miller, MD

Affiliate

Daniel Weed, MD

Affiliate

Frank Workman, MD

Affiliate

Jianjun Zhang, MD, PhD

Associate Member
Cancer Control

New grants

Rebecca Chan, MD, PhD

"Aberrant Monocytic Differentiation Induced by Gain-of-Function Shp2 Mutants"
NHLBI

Rebecca Chan, MD, PhD

"Role of Increased c-Jun Expression in the Pathogenesis of Juvenile Myelomonocytic Leukemia"
Showalter Trust Foundations

Shreevrat Goenka, PhD

"PARP Activity in Allergic Inflammation"
NHLBI

Natalie Hamrick, PhD

"Piloting a Latino Faith-Based Cancer Survivor Program"
Clarian Health

Laura Haneline, MD

"Endothelial Progenitor and Vascular Dysfunction in Infants of Diabetic Mothers"
NHLBI

Oussama Meroueh, PhD

"Small-molecule Inhibition of the Interactions of the Urokinase Receptor: A Target in Tumor Invasion and Metastasi"
NCI

Oussama Meroueh, PhD

"Computational Design and Chemical Synthesis of Next Generation Antimetastatic Agents"
Showalter Trust Foundations

Kathy Miller, MD

"A Phase II Study of VEGF Inhibition in Patients with Unilateral Upper Extremity Lymphedema Following Treatment of Cancer"
Breast Cancer Research Foundation

Rafat Siddiqui, PhD

"Synergistic Anticancer Effects of Docosahexanoic Acid and Curcumin"
NCI

Ronald Wek, PhD

"Translation and Stress Regulatory Pathways in Health and Disease"
Showalter Trust Foundations

Jian-Ting Zhang, PhD

"Novel Small Molecular Inhibitor of ABCG2 for Elimination of Drug Resistant Breast Cancer Stem Cells in Combinational Therapy"
U.S. Department of Defense