IRENE Newsletter

IOWA RESEARCH NETWORK

Volume 5 No. 1 • SPRING • SUMMER 2011

Our MISSION and PURPOSE

IRENE's mission is to improve the health and well-being of Iowans through collaboration in practice-based research on questions important to primary care physicians and their patients. IRENE's purpose is to create and foster a network of research collaboration between the academic medical center and primary care physicians throughout the state of Iowa with a particular focus on improving rural health.

DIRECTOR of IRENE

Barcey Levy, PhD, MD
Professor
Department of Family Medicine
University of Iowa
barcey-levy@uiowa.edu
(319) 384-7622

RESEARCH DIRECTOR

Barry L. Carter, PharmD
Professor
Department of Family Medicine
University of Iowa
barry-carter@uiowa.edu
(319) 335-8456

CONGRATULATIONS To Dr. Michelle Weckmann!!!

Dr. Weckmann is a new researcher to the Department of Family Medicine, starting 1/1/2010. She was just awarded an American Cancer Society grant entitled, "Feasibility of Prophylactic Haldol to Prevent Delirium in Cancer Patients." The 1-year award's objective is to test the feasibility and tolerability of using haloperidol for patients who receive a hematopoietic stem cell transplantation. The hypothesis is that oral haloperidol will prevent delirium and be well tolerated with minimal side effects when given to patients who receive a hematopoietic stem cell transplantation. The $72,000 award starts 7/1/2011.

There are over 11 million cancer patients in the US, and the most common psychiatric diagnosis among cancer patients is delirium. The presence of delirium in a cancer patient is associated with several negative outcomes, including longer hospital stays, long-term cognitive decline, increased caregiver burden and a higher risk of mortality. Over 50,000 patients receive a hematopoietic stem cell transplantation (HSCT) per year, and delirium in this population is among the highest reported in medical patient samples (up to 50% acutely posttransplantation). Unfortunately, delirium is under-recognized and under-treated in this population, resulting in significant morbidity for these patients and their families. Haloperidol is the recommended treatment for delirium and has proven to be safe and effective.

The University of Iowa Department of Family Medicine is turning 40! In recognition of this milestone we are planning a celebration on June 17-18, 2011. The weekend includes an ABFM SAMS Training Module and Simulation opportunity, a Welcome Reception in the new Beckwith Boathouse (LEED-certified) on the Iowa River, a meet and greet with colleagues at the Iowa City Sheraton Hotel to listen to and participate in stimulating presentations by guest speakers, and updates from the 4 former DFM department heads. On Saturday night we will convene at the IMU with a fun-filled evening of BBQ, dancing and more connecting with colleagues. Contact your friends and plan to meet in Iowa City on June 17-18, 2011! Registration information will soon be available on the DFM website, www.uihealthcare.com/depts/med/familymedicine/news.

Delirium Incidence in Oncology Populations at UIHC

By Michelle Weckmann, MD

Delirium is common (18-44%) in hospitalized patients with cancer and has a significant negative impact[2,3]. The acute and long-term negative outcomes from delirium are numerous and include a greater mortality risk, longer hospital stay, increased hospital charges, decreased ability to care for oneself resulting in nursing home placement, increased caregiver burden, long-term cognitive decline and dementia [4-8].The long term effects of delirium can be particularly devastating for younger cancer patients who are more likely to be in the work force and to have children at home. Research has not addressed delirium in younger patients with advanced cancer, leading to a significant gap in our knowledge.

Although the negative impact of delirium is universally known, it remains under-recognized and under-treated. In advanced cancer patients, staff missed the diagnosis of delirium 44% of the time with younger patients more likely to be misdiagnosed[9,10]. Misdiagnosis, or lack of diagnosis, is problematic since it has been shown that 50-85% of delirium is reversible with appropriate treatment[2,11-13]. There is also indirect evidence that patients who have a shorter duration of delirium have better long-term outcomes.

In order to better characterize delirium in patients (age 18-55) with advanced cancer at UIHC, I did a series of preliminary chart reviews, identifying delirium incidence in three oncology populations at UIHC (Figure 1). The following data is from an IRB approved, retrospective chart review of 141 randomly selected hematology-oncology (age 18-55) admissions from 2009 to determine the incidence of delirium using a method previously validated in general medicine inpatients (Inouye 2005). Of the 141 patients, 55 were excluded for the following reasons: cancer not advanced (n=35, 63%), evidence of CNS involvement (n=15, 27%), and delirium at admission (n=5, 9%). Sixteen percent (14/86) of the included patients showed evidence of delirium by chart review. If the patients admitted for surgical resection or chemotherapy are removed from the sample, the incidence of delirium increases to 52%. Average length of delirium was 4.4 days (median 1 day, range 1 to 31) and the mean age of delirium was 51 (Median 51, range 43-55).

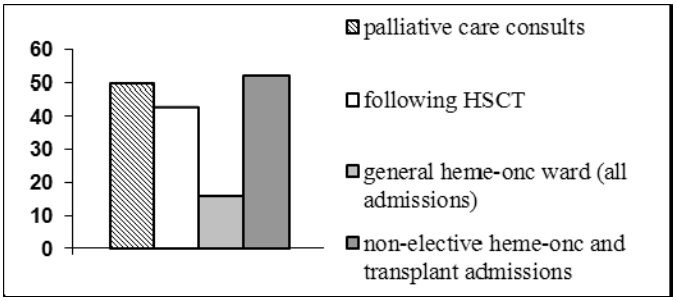


Figure 1: Percent of adult patients with advanced cancer (age 18-55) with delirium. The data show that delirium is common in palliative care and oncology patients admitted for symptom management or a bone marrow transplant. Methods: the incidence of delirium following hematopoietic stem cell transplantation (HSCT) was obtained with prospective screening of 54 patients[1,2] while the remaining incidences were obtained by retrospective chart review.

The chart review showed a trend towards increased delirium frequency in lung and head or neck cancers (Table 2). Other baseline risk factors such as age, sex, and race were not related with the development of delirium, but the reason for admission was. Delirium was much more likely in patients who had a non-elective admission (33% of patients admitted for symptom management) with the exception of patients admitted for a bone marrow transplant (38% developed delirium). No patients admitted for surgical resection and only 5% of patients admitted for chemotherapy developed delirium (all those patients had hematological malignancies). *The data show that delirium is common in younger cancer patients admitted for symptom management (33%) or a bone marrow transplant (38%).*

Cancer Type	Delirium	No delirium	Percent
Hematological	7	29	19
Head and Neck	2	10	17
Gastrointestinal	1	8	11
Lung	3	1	75
Genitourinary	1	0	100

There are clear methodological limitations to this study, chiefly the retrospective nature. Chart review is known to under-represent the true incidence of delirium in a population, and I suspect it has done so in this case. Still, this brief study suggests that up to 1/3 of younger patients with advanced cancer who are admitted for symptom

Delirium Incidence in Oncology Populations at UIHC *(continued from page 2)*

control will have delirium. The incidence is likely much higher in elderly patients with advanced cancer who are admitted to the hospital. While this was a subset of patients who choose to receive their care in a tertiary care center, it is not uncommon for an elderly patient with cancer to choose to remain in his/her home community for care, and these results should be generalizable to those patients. If family physicians can maintain a higher suspicion of delirium, we are more likely to diagnose it and increase the chance that a patient and family will have an improved outcome, since up to 85% of delirium can be resolved in patients with advanced cancer.

1. Beglinger LJ, Duff K, Van Der Heiden S, Parrott K, Langbehn D, Gingrich R. Incidence of delirium and associated mortality in hematopoietic stem cell transplantation patients. *Biol Blood Marrow Transplant.* Sep 2006;12(9):928-935.
2. Ljubisavljevic V, Kelly B. Risk factors for development of delirium among oncology patients. *Gen Hosp Psychiatry.* Sep-Oct 2003;25(5):345-352.
3. Lawlor PG, Fainsinger RL, Bruera ED. Delirium at the end of life: critical issues in clinical practice and research. *Jama.* Nov 15 2000;284(19):2427-2429.
4. Cobb J. Delirium in patients with cancer at the end of life. *Cancer Pract.* 2000;8(4):172-177.
5. Franco K, Litaker D, Locala J, Bronson D. The cost of delirium in the surgical patient. *Psychosomatics.* Jan-Feb 2001;42(1):68-73.
6. Siddiqi N, House AO, Holmes JD. Occurrence and outcome of delirium in medical in-patients: a systematic literature review. *Age Ageing.* Jul 2006;35(4):350-364.
7. Roth-Roemer S, Fann J, Syrjala K. The importance of recognizing and measuring delirium. *J Pain Symptom Manage.* Mar 1997;13(3):125-127.
8. Fong TG, Jones RN, Shi P, et al. Delirium accelerates cognitive decline in Alzheimer disease. *Neurology.* May 5 2009;72(18):1570-1575.
9. Fang CK, Chen HW, Liu SI, Lin CJ, Tsai LY, Lai YL. Prevalence, detection and treatment of delirium in terminal cancer inpatients: a prospective survey. *Jpn J Clin Oncol.* Jan 2008;38(1):56-63.
10. Wada T, Wada M, Onishi H. Characteristics, interventions, and outcomes of misdiagnosed delirium in cancer patients. *Palliat Support Care.* Jun 2010;8(2):125-131.
11. Lawlor PG, Gagnon B, Mancini IL, et al. Occurrence, causes, and outcome of delirium in patients with advanced cancer: a prospective study. *Arch Intern Med.* Mar 27 2000;160(6):786-794.
12. Sagawa R, Akechi T, Okuyama T, Uchida M, Furukawa TA. Etiologies of delirium and their relationship to reversibility and motor subtype in cancer patients. *Jpn J Clin Oncol.* Mar 2009;39(3):175-182.
13. Yates JW, Chalmer B, McKegney FP. Evaluation of patients with advanced cancer using the Karnofsky performance status. *Cancer.* Apr 15 1980;45(8):2220-2224.

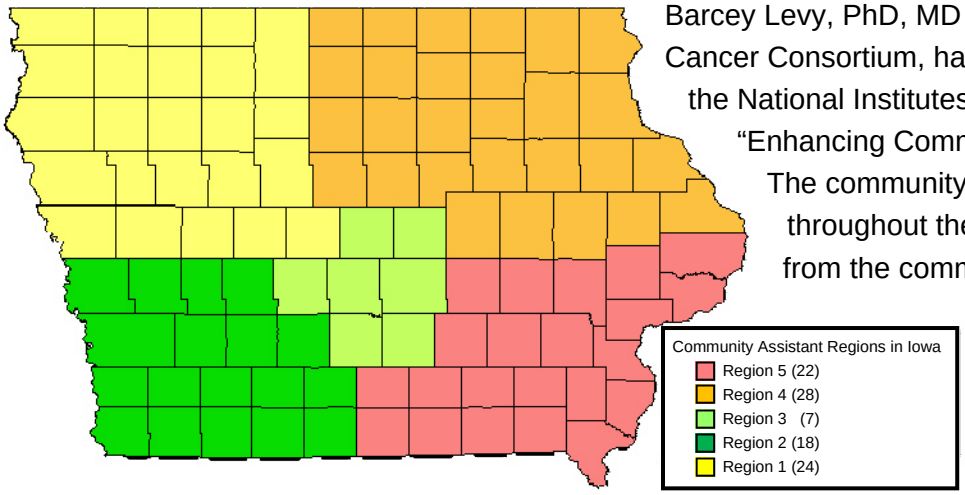
American Cancer Society Colon Cancer Screening Project Update

The third year of the project, which was to test office reminder systems of gradually increasing intensity to ensure that the patient is educated about CRC screening and receives a physician recommendation for screening, will be finished this June 2011. Medical record review of 1,446 participating subjects has been completed in 15 of the 16 participating IRENE offices. Chart review for Alegent Health Center in Corning, IA will be conducted the end of April.

Call for State Cancer Implementation Plan Proposals

The Iowa Cancer Consortium is accepting proposals for State Plan Implementation Grants whose purpose is to help maintain and expand projects implemented by the Iowa Cancer Consortium. The Board of Directors invites project proposals that support the State Cancer Plan (http://www.canceriowa.org/About-the-ICC/State-Cancer-Plan.aspx) for FY 2012. The intent is to fund collaborative projects that address identified gaps in Iowa's cancer prevention and control efforts. Application deadline is May 6, 2011. It is anticipated that $80,000 will be available for implementation of the State Cancer Plan, and up to $25,000 may be awarded per project. Please contact Rachel Schramm at Schramm@cancerIowa.org or (319) 467-4569 with questions.

Community Assistants Hired for Iowa



Barcey Levy, PhD, MD and Sara Comstock, Director of the Iowa Cancer Consortium, have hired five community assistants for the National Institutes of Health Recovery Act grant entitled, "Enhancing Community-Based Cancer Control in Iowa." The community assistants will be hosting forums throughout the state on issues related to cancer control from the community perspective. The state has been divided into five regions (see map), and the following persons will cover each region: Region 1 Northwest Iowa: Tammi Kinney (tkinney@calhouncountyiowa.com), Region 2 Southwest Iowa: Judy Boye (pcphjb@mchsi.com), Region 3 Central Iowa: Daniel Hoffman-Zinnel (iccregion3@GMAIL.COM), Region 4 Northeast Iowa: Rachel Schramm (rachel-schramm@uiowa.edu), and Region 5 Southeast Iowa: Raul Calderon (evaluations@mum.edu). If you are interested in hosting a forum with the community assistant, please contact Barcey Levy or any of the community assistants.

Tammi Kinney
Region 1 Northwest Iowa

Judy Boye
Region 2 Southwest Iowa

Daniel Hoffman-Zinnel
Region 3 Central Iowa

Raul Calderon
Region 5 Southeast Iowa

We have an opening for a regional Community Assistant to help with this project in the Region 4 Northeast Iowa area. We need an **energetic individual** who is good at organizing and collaborating with others. Compensation provided at $10,000 per year, working on a part-time basis.

Position Overview

The Community Assistant will be the point-person for the facilitation and implementation of community-based partnerships in conjunction with the University of Iowa and the Iowa Cancer Consortium. This person will provide administrative support and leadership to the Community Advisory Board and will be involved with members, organizations, and activities of the partnership, bringing together all components to ensure the success of the partnership.

Apply online at www.CancerIowa.org
Or email Comstock@CancerIowa.org

If you have questions, please contact
Sara Comstock at 319-335-8144

Recruiting IRENE Offices to Participate in the NIH Funded Study Enhancing Community-Based Cancer Control in Iowa

Principal Investigator: Barcey T. Levy, PhD, MD

What does my office have to do to be part of the infrastructure?

- Participate in a learning session about cancer control issues (at a time convenient for your office—usually the lunch hour)
- Communicate with grant staff or community assistants using Skype or another form of telecommunication 4-6 times per year (at a time convenient for you)
- Complete paperwork to conduct research at your office with the University of Iowa Institutional Review Board as the IRB of record to ensure the protection of human subjects
  - Obtain a Federalwide Assurance (FWA) (some of you may have it already)
  - The FWA assures that your institution engaged in research will comply with federal regulations and policies to conduct research
  - Have a couple of staff members certified in human subjects research (some of your staff may have completed this). Human subjects training is online and takes approximately an hour to complete
- Attend at least one state-wide meeting during the course of the 3-year grant, such as the Iowa Academy of Family Physicians annual meeting, the Family Physician Refresher Course, or the Iowa Cancer Summit
- Facilitate the implementation of a computer/printer in your office for telecommunication

Will my office be compensated?

- The first 50 offices to agree to participate will be provided with a desktop computer and printer for use during future infrastructure building and studies. Each office will need to pay for appropriate internet connections and e-mail service.
- Travel costs to the state-wide meetings will be covered by the grant.

What other benefits might there be?

- At the conclusion of the project, we will provide your office with the overall results of this infrastructure project.
- At the conclusion of the project, your office will be ready to conduct research if you are interested in the topics that are funded for the Iowa Research Network or the Iowa Cancer Consortium.

1. Would you be interested in participating in this project to develop cancer research infrastructure through IRENE?

☐ Yes ☐ No ☐ Unsure, would like to talk with someone. Please call me at _____

2. Is your practice currently a member of the Iowa Research Consortium? ☐ Yes ☐ No ☐ Unsure

3. Does your office have a cancer disease registry? ☐ Yes ☐ No ☐ Unsure

4. Who is the best contact person in your office? _____

5. Phone number for this contact _____

_____ _____

Physician Signature Date

_____

Print Name of Office

PLEASE FAX BACK TO Barcey T. Levy at 319-384-7647 by June 1, 2011

Thank You!

Recent IRENE Publications:

1. Daly, J. M., Ely, J. W., Levy, B. T., Smith, T. C., Merchant, M. L., Bergus, G. R., & Jogerst, G. J. (Online 15 Nov. 2010). Primary care clinicians' perspectives on management of skin and soft tissue infections: An Iowa Research Network study. Journal of Rural Health. DOI: 10.1111/j.1748-0361.2010.00347.x

IRENE Manuscript Submitted for Publications:

1. Daly, J.M., Jones, J., Gereau, P., & Levy, B. T. (In press). Non-response error in mail surveys: Top ten problems. *Nursing Research and Practice.*

2. Levy, B. T., Xu, Y., Daly, J. M., & James, P. A. (In submission). A randomized clinical trial to improve quality measures for Type 2 diabetes in rural practices. *Journal of the American Board of Family Medicine*.

3. Daly, J. M., Yu, X., & Levy, B. (In submission). Patient and physician management of self-monitoring of blood glucose: An Iowa Research Network Study. *Journal of Rural Health.*

4. Levy BT, Daly JM, Bergus GR, Ely JW, Jogerst GJ, Smith T, Zheng S. Management of skin and soft tissue infections: An Iowa Research Network study. *Journal of the American Board of Family Medicine*.

5. Daly JM, Levy BT, Ely JW, Swanson K, Bergus GR, Jogerst GJ, Smith T. (In submission). Management of skin and soft tissue infections in community practice before and after implementing a "best practice" approach: An Iowa Research Network intervention study. *Journal of the American Board of Family Medicine*.

Congratulations to
Dr. Barcey T. Levy

ON HER APPOINTMENT AS
IAFP ENDOWED CHAIR IN
RURAL MEDICINE

INSIDE THIS ISSUE:

EDITOR
Jeanette M. Daly, RN, PhD
Assistant Research Scientist
Fax: (319) 353-6725
Email: jeanette-daly@uiowa.edu

ASSISTANT TO THE EDITOR
Amy Miranda, Research Secretary

CONTACT INFORMATION:
Toll free phone: 866-890-5963

We're on the web!
http://www.uihealthcare.com/depts/med/familymedicine/research/irene/index.html

University of Iowa
Carver College of Medicine
Department of Family Medicine
200 Hawkins Drive, 01105 PFP
Iowa City, IA 52242-1097

IRENE
IOWA RESEARCH NETWORK

Nonprofit Org
U.S. Postage
PAID
UNIVERSITY of IOWA