

## Poster Presentations

### **#1 PAPER TO CYBERSPACE: HOW TO STANDARDIZE POLICIES AND DOCUMENTATION**

*Kathryn Bond, MPA, RN, OCN, Clinical Pain Specialist, Banner Good Samaritan Medical Center, Phoenix, AZ; Ruthie Mangino, MS, RN, CNS, Banner Desert Medical Center*

Presenters will describe the 2-year process to consolidate 35 pain policies into 5 system polices which occurred when two health care systems in Arizona merged. Review of literature, standards of care, and current practice offered opportunities for change and barriers to the project. One year later, these policies were used to standardize the process of moving from a paper system to an electronic nursing documentation system for all pain assessments. The poster will show the process to consolidate policies; schedule a Net meeting and the components of an electronic pain assessment. Change theories, barriers and meeting strategies to implement this project will be shown as the system moves toward implementation of electronic documentation.

### **#2 NOVEL APPLICATION OF SPINAL CORD STIMULATION IN PAIN SECONDARY TO POLYCYSTIC KIDNEY DISEASE**

*Virginia Boyle, RN, C, Senior Staff Nurse, Mayo Clinic Jacksonville, Jacksonville, FL  
Jeffrey Tied, MD, Pain Medicine Clinic, Mayo Clinic Jacksonville*

**Introduction:** Autosomal dominant polycystic kidney disease (ADPKD) is a systemic condition characterized by multiple bilateral renal cysts with possible manifestations of renal calculi and flank pain. We describe the novel use of spinal cord stimulation (SCS) in a patient with refractory visceral hypersensitivity secondary to ADPKD.

**Case:** S.F. is a 40y/o male with greater than one year history of recalcitrant bilateral flank pain. The pain was constant, stabbing, non-mechanical, and radiated to the bilateral testicles. His past history was remarkable for greater than 120 episodes of uteral calculi prior to his referral to our tertiary care center. Workup revealed innumerable bilateral renal cysts, many with complex ecogenicity to suggest various stages of hemorrhage. Medical treatment including multiple courses of opioids and membrane stablizing medications and interventions including splanchnic nerve radiofrequency lesioning provided unsatisfactory relief. An outside facility performed a left orchietomy during an acute exacerbation with ureteral calculi for unknown reasons. This resulted in worsening scrotal pain secondary to genitofemoral neuralgia. A trial of spinal cord stimulation provided 90% pain reduction. A permanent system with a complex array of two quadrapolar and one octopolar leads was placed that allowed for elaborate programming in which the patient could stimulate both flanks and the left sided scrotal region. At a six month follow-up the patient had near complete resolution of his pain, had discontinued all analgesics and returned to full-time employment.

**Discussion:** Severe flank pain is often seen in patients with ADPKD secondary to recurrent stone disease or painful cysts 1-3. Preclinical data shows the spinal cord dorsal column is important in the development of visceral hypersensitivity 4. Preclinical data and case series have shown the benefit of SCS in visceral abdominal pain and pelvic pain 5-7. Our patient had dramatic relief of his flank pain secondary to ADPKD with use of SCS.

### **#3 USE OF PAIN RESOURCE NURSE CAN DECREASE VISITS TO ED**

*Lola Chitwood, RN, Pain Resource Nurse, Mercy Medical Center, Roseburg, OR*

The use of a pain resource nurse can decrease the number of visits to the Emergency Department by patients with chronic pain issues. This will increase patient satisfaction, decrease ED wait times, as well as save time and money in the ED.

This is accomplished through the use of referral to the nurse from ED physicians or from the Primary Care Physician. The pain resource nurse meets with the patients on a 1:1 basis to teach alternative comfort measures, encourage compliance with the PCP, and contacts them on a weekly basis.

### **#4 PAIN MANAGEMENT: POST-OPERATIVE PATIENTS USE OF PCA**

*Linda Cook, PhD, RN, CCRN, CCNS, ACNP, APRN, BC, Clinical Nurse and Research Nurse Specialist, Doctors Community Hospital, Lanham, MD*

*DW Stephenson, BS, AAS, RN, Doctors Community Hospital*

Patient controlled analgesia (PCA) allows for patient administration of small doses of opioid medication to provide prompt relief of pain and has been identified as a method to provide equivalent or better analgesia than the conventional nurse administered opioid analgesia. This study looked at patient response to the use of PCA and to identify issues related to patient education, use and effectiveness. The frequent reports of the negative physiological and psychological affect of unrelieved pain and that the patient is the best determinate of pain level and need for pain medication served as the basis of this study. Post-operative patients often wait until pain levels are beyond tolerance and then are inadequately treated. PCA use allows the patient to be in control of his/her pain medication but is there reluctance to self-administer doses of opioid analgesia? This pilot study was done to identify post-operative patient issues related to the use of PCA and to identify potential pain management practice issues within the hospital. Thirty patients receiving PCA for post-operative pain management were face-to-face interviewed 24-36 hours post-operatively and asked a total of 9 questions. The patients interviewed were very pleased with their pain control and felt comfortable with self-

administration of pain medication. Three of the patient's voiced concern about becoming addicted to the narcotic. Twenty-five of the patients disagreed or strongly disagreed about the statement "I am afraid I will get too much medication." Sixteen patients reported low (0-3) pain rating despite being 1-2 days post-operative total joint replacements or abdominal surgery. It is the recommendation that patients continue to be provided with PCA administered analgesia as per protocol. It is theorized by the researchers that the post-operative pain experienced may be less than what was tolerated pre-operatively or that the pain was tolerated as an expected outcome of surgery.

**#5 MEET THE COWS: UTILIZING THE CLINICAL OPIATE WITHDRAWAL SCALE IN A PAIN REHABILITATION CENTER**

*Joan Cronin, RN, CSN, LADC, Clinical Nurse Specialist, Mayo Clinic, Rochester, MN*

*Susan Bee, RN, MS, CNS; Peg Dokken, RN, BSN; Connie Luedtke, MA, RN,C; W. Michael Hooten, MD*

Patients with chronic non-malignant pain are admitted to this outpatient multidisciplinary pain rehabilitation center with a willingness to taper off opioid medications while learning non-pharmacological strategies to manage pain. Acuity of this patient population has heightened with increased levels of opioid use leading to greater potential for withdrawal symptoms. Inpatient units are rarely available for detoxification, so strategies are required to assist this process for outpatients. The Clinical Opiate Withdrawal Scale (COWS) was implemented to provide consistent measurement of opioid withdrawal. This poster will show the process for improved management of opioid withdrawal utilizing the Clinical Opiate Withdrawal Scale. The method included identification of COWS as tool in public domain. Nurses were educated about withdrawal symptom assessment using the COWS tool. Patients undergoing withdrawal began daily assessments utilizing the COWS. Specific interventions were outlined for nursing to implement according to severity of withdrawal indicated by the COWS score and patients were instructed on techniques they could utilize to manage withdrawal symptoms independently. The level of RN, Clinical Nurse Specialist, and MD involvement in patient care was also dependent on the COWS score, with higher scores requiring more intense intervention. Nurses reported increased confidence in accurately assessing withdrawal as well as implementing strategies as indicated. Treatment interventions were streamlined with reporting of patient's COWS score instead of a list of patient's symptoms. The objective information obtained from the COWS score, helped staff differentiate actual withdrawal versus anxiety or other symptoms. Withdrawing from opioid medications is a difficult task in itself, without the patients having additional responsibility of learning new self-management strategies. Utilizing a tool to assess the level of withdrawal and recommending strategies for patients at each level of symptom severity, has promoted consistent, effective care of patients, with nursing staff having clear direction when to request additional help.

**#6 ANALGESIC EFFICACY & SAFETY OF EXTENDED-  
RELEASE TRAMADOL HCL (ULTRAM® ER) IN THE  
TREATMENT OF CHRONIC NON-MALIGNANT PAIN**

*Donna M. Jordan, BSN, RN, Director, Clinical Operations, PriCara, Unit  
of Ortho-McNeil, Inc., Raritan, NJ*

*Jean E. Farrell, RN; Jim Xiang, PhD, Ortho-McNeil Janssen Scientific  
Affairs, LLC; Bruce L. Moskovitz, MD, PriCara*

Extended-release (ER) tramadol HCl (ULTRAM® ER) is a non-scheduled centrally-acting synthetic opioid analgesic providing chronic pain relief with once-daily administration. Two 12-week, double-blind, placebo-controlled, randomized, parallel-group studies evaluated the analgesic efficacy, safety, and tolerability of tramadol ER in adult patients with moderate to severe chronic pain due to osteoarthritis of the knee (Study A, N=246, flexible dose, 200-400 mg QD) and chronic low back pain (Study B, N=386, fixed dose, 200 or 300 mg QD). Along with new patients, patients completing Studies A and B were eligible for Study C, a 1-year, multicenter, single-arm, open-label study of chronic non-malignant pain (N=1,052, dose-range, 300-400 mg QD). Patients rated their pain intensity (PI) using a 100-mm visual analog scale (VAS; 0 = no pain, 100 = extreme pain). In Study A, the mean decrease in VAS score from baseline averaged over the 12-week treatment period was significantly greater (P<.001) for the tramadol ER group compared to placebo, as were the mean changes from baseline to Weeks 1, 2, 4, 8, and 12 (P<#8804;.003). In Study B, tramadol ER 300 mg provided significantly better pain control than placebo, measured by mean changes in PI VAS scores averaged over Weeks 1-12 (P=.009). In Study C, the average PI VAS score decreased from baseline by 12.6 mm at Week 1, 20.2 mm at Week 6, and 17.4 mm at Week 54. The most commonly reported adverse events for all 3 studies were dizziness, nausea, constipation, headache, somnolence, and flushing, not unexpected for an opioid analgesic. Thus, the efficacy and tolerability of tramadol ER were demonstrated in 2 randomized clinical trials in which patients reported decreased pain intensity as early as Week 1. Pain reduction was associated with tramadol ER in a 1-year open-label study, suggesting that ULTRAM ER may have sustained durability up to 1 year.

**#7 NURSING LEADERSHIP ROLE IN PAIN MANAGEMENT  
ACROSS THE CONTINUUM OF CARE**

*Connie Luedtke, MA, RN,C, Nurse Supervisor, Mayo Clinic, Rochester,  
MN*

*Rita Ray-Mihm; Pam Nelson*

The role of leadership is pivotal in pain management practice in health care. Nurse leaders are in a position to educate and motivate nurses, influence policy and empower patients/families.

This abstract describes a model, which nurses from four separate pain areas were brought together in practice, education and research to improve patient care. The pain specialty areas were housed within departments of

anesthesia and psychiatry. The model proposed cross-training of nursing staff in order to integrate new knowledge about pain management continuum of care into each specialty. Many patients experience acute and chronic pain as well as multiple co-morbidities. Cross-training allows the nurses to provide competent care to these patients and enhances staffing flexibility. Since its implementation, 8 of 19 nurses have been oriented to all 4 areas consisting of the Pain Clinic, Pain Rehabilitation Center, Fibromyalgia Treatment Program and the Acute Pain Service for inpatients; 8 others have been oriented to at least 3 of the pain specialty areas.

As nurse leaders, the nursing supervisor (NS), clinical nurse specialist (CNS), and nursing education specialist (NES) collaborated to develop the model of integrated nursing pain practice. The role of the NS included identification of needs in each practice area, arranging orientation schedules, providing coverage during times of training and most importantly keeping the vision of an integrated pain practice as the main focus. The role of the CNS was to clarify scope of practice issues, develop pain related policies and procedural guidelines, offer consultation for complex patients, improve practice outcomes and promote research. The NES focused on development of needs assessment competency tools, orientation plans and staff development.

This poster will illustrate the model that was implemented, including the role of nurses and leadership in each pain area. Benefits of this model, staffing efficiencies, cost effectiveness, improved patient and nurse satisfaction, will be highlighted.

**#8 IT IS THE 21<sup>ST</sup> CENTURY – WHY ARE PEOPLE STILL DYING IN PAIN?**

*Janice Reynolds, RN, C, OCN, Staff Nurse, Mid-Coast Hospital, Brunswick, MD*

Although we know how to manage most pain, a study in 2000 estimated 50% of patients still have moderate to severe pain at time of death. Horror stories abound. Why?

Education of professionals continues to be a problem both in school and in Continuing Education, although that is improving. We all know however, education does not change practice, and failure to implement new knowledge persists.

There are many economic barriers, including poverty itself, formularies, lack of insurance and the unavailability of some opioids in inner city or rural areas. Fear of addiction exists in health care professionals, patients, and families. Fears of the side effects of opioids are also frequently a concern.

Prescribers fear regulatory scrutiny or even jail (both unwarranted).

There continues to be biases against people of color and different sexual orientation, which manifests itself in prescribing less medication. Substance abusers also face bias, as well as lack of understanding on how to manage their pain.

Hospice is poorly utilized and while hospice is not necessarily for everyone, many are denied its benefits because of a lack of timely referral.

Many of these barriers could be breached if patient and family education was improved to where right to adequate pain management is acknowledged.

Probably the biggest barrier is a lack of accountability. Incentive to change is lacking when HCPs are not held accountable for their practices.

#### **#9 BUILDING A PAIN RESOURCE TEAM: BLUEPRINTS FOR SUCCESS**

*Kathleen Ross, RN, C, MSN, CRRN, Clinical Nurse Specialist, Carolinas Rehabilitation, Charlotte, NC*

Although advances in medicine and technology have provided an enhanced awareness and insight into pain and its treatment, much pain still goes unrelieved. Education is essential but cannot in itself produce the changes needed to address these issues. Through institutional support and individuals willing to be change agents for pain, transformation can take place.

According to the Wisconsin Resource Manual, Building an Institutional Commitment, there are several key elements to success. These include an interdisciplinary work group, a standard for pain assessment and documentation, information about interventions, accountability, ongoing educational opportunities, and explicit policies and procedures.

Just as construction blueprints eventually produce beautiful homes, blueprints for success can produce a highly effective and successful Pain Resource Team. Consisting of dedicated staff, combining their expertise and commitment to quality pain management, a solid foundation must first be created. Upon this foundation, a successful pain resource team can be constructed. With blueprints in hand and institutional commitment at your side, it is time to build a Pain Resource Team.

#### **#10 CRACKING THE CREATININE CODE**

*Roberta Stephenson, RN, BA, In-Patient Pain Service Nurse, Stryker, Rochester, MN*

Many post-operative surgical patients have the non-steroidal anti-inflammatory ketorolac (Toradol) ordered as a part of their analgesic regimen. Most nurses are trained to look at urine output and serum creatinine level before administering a dose of ketorolac. This poster will show that the creatinine serum level may not accurately reflect a patient's

renal function and that it is important to assess the actual or estimated creatinine clearance level before administering a dose of ketorolac. The standard method for measuring creatinine clearance is the Cockcroft-Gault formula.

This poster will illustrate how patients with a normal serum creatinine level may have a significantly low creatinine clearance.

For example:

Two 73 year old female patients underwent total left knee replacement surgery.

Patient A had a serum creatinine of 0.7, with an estimated creatinine clearance of 47.3mL/minute. Patient B had a serum creatinine of 1.0, with an estimated creatinine clearance of 47.2mL/minute.

If a nurse looked only at the serum level he/she would not be aware of the decreased renal function that is apparent from looking at the estimated creatinine clearance. The poster will illustrate that creatinine clearance generally declines with increasing age and the nurse should check both serum creatinine and actual or estimated creatinine clearance level, before administering a dose of ketorolac.

### **#11 PAIN MANAGEMENT WITH INFANT CIRCUMCISION**

*Dorothy Stratman-Lucey, RN, MSN, C,BC PNP, Pain Management Coordinator and Anesthesia PNP, Shriners Hospital for Children, St. Louis, MO*

Circumcisions are performed on an estimated 1.2 million newborn males annually for various religious, cultural, social, or belief reasons. Many circumcisions are still performed with no or very little analgesia. Often, if a block is utilized, the provider does not wait the 5 minutes for the block to work prior to beginning the procedure.

Both the American Academy of Pediatrics and the ASPMN have position papers supporting pain management. We now realize that the very young have the potential for neurological changes that may influence them later in life when they are not provided adequate pain management at this vulnerable time.

Looking at the research findings relating to infant circumcision, the authors then formulated a protocol that incorporated the findings from various studies to facilitate implementation of the needed pain management care. The intent is to help research reach practice for this vulnerable population. Discussion is needed to help practitioners address the system and care issues to ensure pain management is achieved. We have a care mandate to provide the best pain management possible. In actuality, this is not our standard practice.

**#12 MANAGING THE COGNITIVE DISTURBANCE OF  
“FIBRO FOG”: A COMPUTER ANALOGY**

*Susan Utesch, RN, Primary Care Coordinator, Mayo Clinic,  
Mantorville, MN*

*Connie Luedtke, RN, MS; Peggy Kokken, RN; Jane Alexander, RN;  
Susan Hayes, RN, MS; Laura Newell, RN; Cynthia Townsend, PhD;  
Barbara Bruce, PhD; Christopher Sletten, PhD*

Approximately 3.7 million Americans suffer with fibromyalgia, experiencing generalized body pain and fatigue and often complaining of memory lapses, word mix-ups and difficulty concentrating. This is popularly described as "fibro fog".

PRC staff uses an analogy to explain the phenomenon of “fibro fog” as being equivalent to a slow running computer because too many windows are open. These open windows metaphorically include: mood difficulties, insomnia, narcotic medication use, fatigue and pain behaviors. While yet unknown neuropsychological factors may contribute to “fibro fog”, cognitive functioning may be decreased by mood, sleep deficiencies and medication use; behavioral strategies can minimize their impact.

Continuing with the computer analogy, the PRC provides the patients with self-management skills that facilitate the closure of the ineffective windows of insomnia, narcotic use, fatigue and mood. These cognitive behavioral techniques empower patients to address this nebulous enemy of “fibro fog”

Patients attending Mayo Clinic Pain Rehabilitation Center (PRC) undergo comprehensive psychometric testing to measure concentration and memory performance. This poster will present a brief summary of the psychometric testing that patients complete and the strategies utilized at the Pain Rehabilitation Center to help patients regain confidence in their ability to function cognitively and improve their overall quality of life.