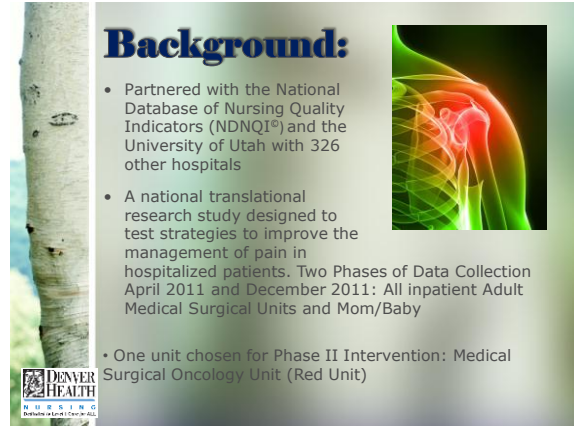


A Fresh Outlook on Pain Management: Three Innovative Strategies to Reduce Pain

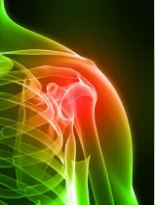

Christy Rose, MSN, RN, CCRN
Denver Health Medical Center

7th Annual Nursing Quality Conference: "Reaching the Core of Quality"



Background:

- Partnered with the National Database of Nursing Quality Indicators (NDNQI®) and the University of Utah with 326 other hospitals
- A national translational research study designed to test strategies to improve the management of pain in hospitalized patients. Two Phases of Data Collection April 2011 and December 2011: All inpatient Adult Medical Surgical Units and Mom/Baby
- One unit chosen for Phase II Intervention: Medical Surgical Oncology Unit (Red Unit)


Setting:



- Denver Health Medical Center
- Rocky Mountain Regional Trauma Center
- 525 beds - urban public safety net hospital
- 42% of Denver Health clients are uninsured
- In 2011, \$460 million of uncompensated care was provided to patients who could not pay for their care

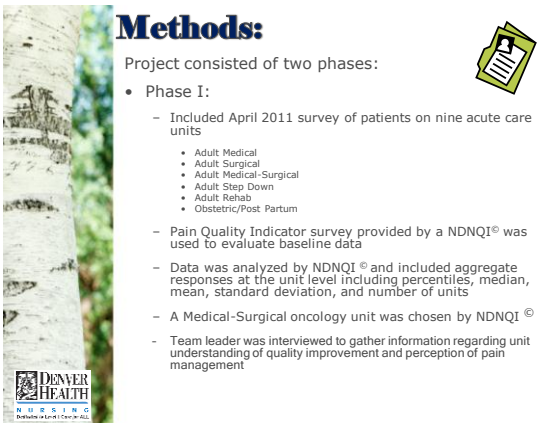




Purpose:

- The purpose of this study is to:
 - Gather data from patients by asking them directly about their experience with pain
 - Gather the responses about their perception and satisfaction of pain care
 - Implement evidence-based approaches to measure and improve outcomes as related to pain management



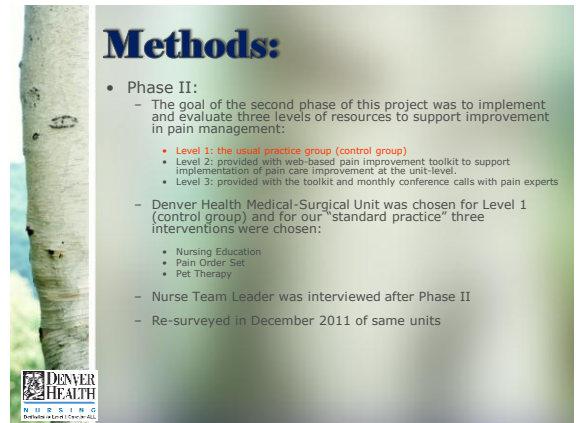




Methods:


Project consisted of two phases:

- Phase I:
 - Included April 2011 survey of patients on nine acute care units
 - Adult Medical
 - Adult Surgical
 - Adult Medical-Surgical
 - Adult Step Down
 - Adult Rehab
 - Obstetric/Post Partum
 - Pain Quality Indicator survey provided by a NDNQI® was used to evaluate baseline data
 - Data was analyzed by NDNQI® and included aggregate responses at the unit level including percentiles, median, mean, standard deviation, and number of units
 - A Medical-Surgical oncology unit was chosen by NDNQI®
 - Team leader was interviewed to gather information regarding unit understanding of quality improvement and perception of pain management

Methods:

- Phase II:
 - The goal of the second phase of this project was to implement and evaluate three levels of resources to support improvement in pain management:
 - Level 1: the usual practice group (control group)
 - Level 2: provided with web-based pain improvement toolkit to support implementation of pain care improvement at the unit-level.
 - Level 3: provided with the toolkit and monthly conference calls with pain experts
 - Denver Health Medical-Surgical Unit was chosen for Level 1 (control group) and for our "standard practice" three interventions were chosen:
 - Nursing Education
 - Pain Order Set
 - Pet Therapy
 - Nurse Team Leader was interviewed after Phase II
 - Re-surveyed in December 2011 of same units





Interventions:



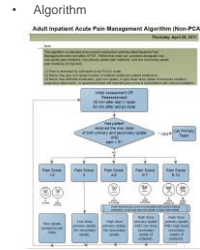
- Created an evaluation tool for nurse knowledge regarding pain:
 - "Brief Pain Surveys" developed by leading pain researchers Betty Ferrell, PhD FAAN and Margo McCaffery RN, MSN, FAAN (Ferrell, BR & McCaffery, M. 1996 Brief Pain Surveys/City of Hope, Duarte, CA)
- Nurses surveyed prior to and after education



Interventions:

Education done Sept 2011

- Education included:
 - Pain assessment principles:
 - Accept patients complaint of pain
 - History of pain
 - Assessment of non-verbal patients
 - Patient centered goals



Interventions:

Education done May 2011
September 2011

- Pain Order Set
 - Education done with RNs
 - Education done with Providers
 - Implementation June 7, 2011
 - Feedback from RN's
 - Feedback from Providers
 - Early data gathering



Interventions:

- Pet Therapy
 - Pain scores before and after
 - Patient comments
 - Observation



Education done
Sept 2011
First visit
9/12/2011



Results & Outcomes:

- Patient survey (NDNQI®)
- Nurse pre and post education
- Order Set
- Pet Therapy
- Focusing on control unit
- Interventions were over a 3 month period:
 - September 2011 through November 2011
- Unclear on what intervention affected results**
- Statistical difference vs. clinical difference**

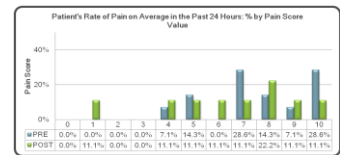


Results: Patient Survey

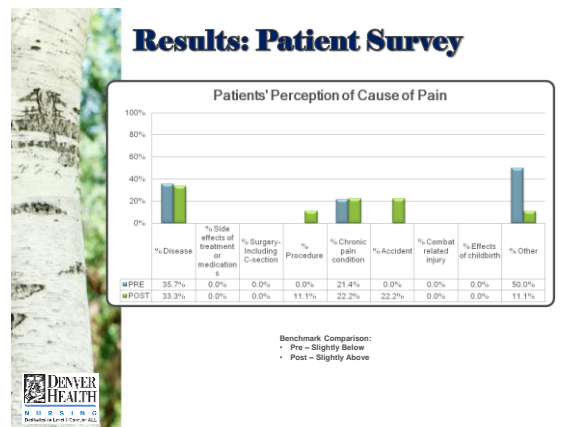
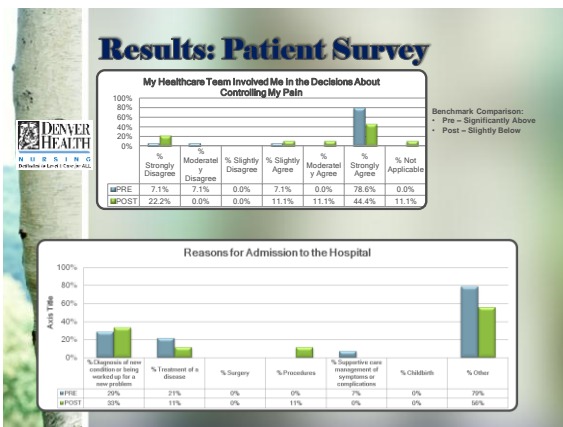
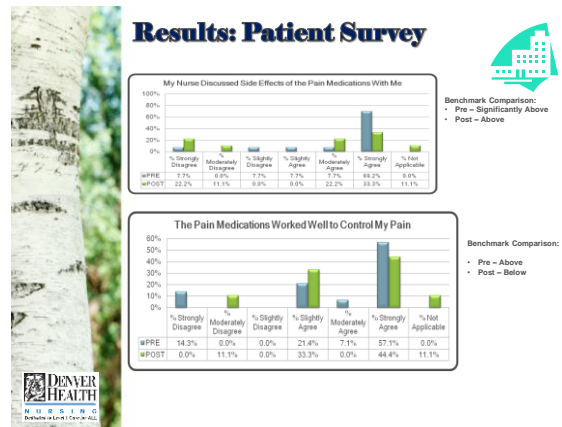
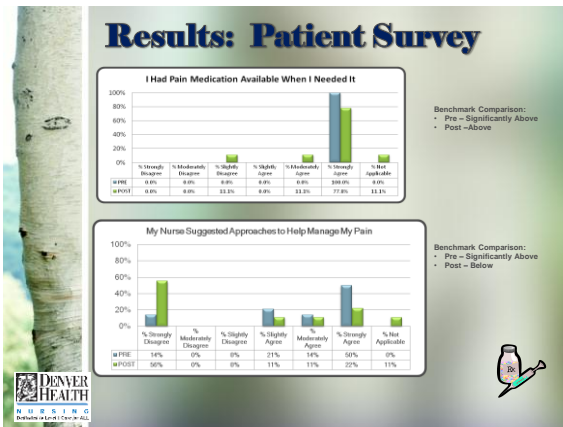
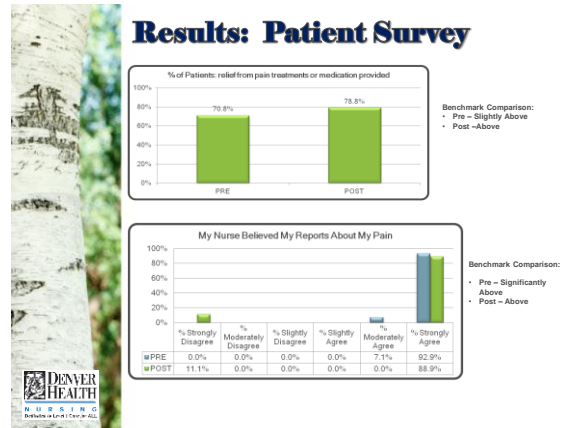
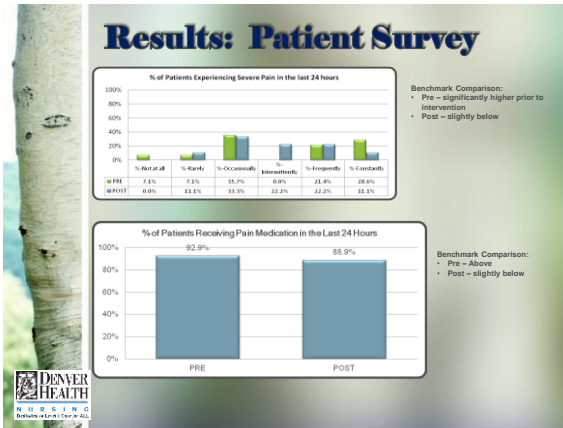
- Included patients:
 - Age 19 or older
 - English speaking
 - Be in pain or given pain medication within the last 24 hours

Pre: April 2011
Post: December 2011

	Unit Census	Patients Assessed	Patients Off Unit	Patients Physically Unable	Wrong Population Type	Patient Ineligible	Patient Refused
PRE	31	14	3	4	0	8	2
POST	36	9	1	3	0	20	3



- Benchmark Comparison:
- Pre – significantly higher prior to intervention
 - Post – slightly below



Results: The Staff Survey

Survey consisted of:

- Test Questions
- Multiple Choice
- True/False
- Yes/No Opinions

of Nurses Surveyed:

- Pre - N=24
- Post - N= 23

Red denotes correct answer



Staff perception of which gender endorses more distress	Pre	Post
Men have greater distress related to their pain than do women	29.2%	13.0%
Women have greater distress related to their pain than do men	0.0%	13.0%
There are generally no differences in pain distress between men and women	70.8%	73.9%

Staff perception of how gender influences willingness to report pain	Pre	Post
Men tend to be stoic and under-report their pain more so than women	16.7%	27.3%
Women tend to be stoic and under-report their pain more so than men	8.3%	0.0%
Neither of the above	75.0%	63.7%



Results: The Staff Survey

Staff perception of maximum, tolerated narcotic analgesic therapy for treatment of chronic cancer pain (maximum tolerance)	Pre	Post
Prognosis of less than 24 months	4.3%	4.3%
Prognosis of less than 18 months	0.0%	4.3%
Prognosis of less than 6-12 months	0.0%	0.0%
Prognosis of less than 3-6 months	0.0%	8.7%
Prognosis of less than 1 month	4.3%	0.0%
Prognosis of less than 1 week	0.0%	4.3%
Anytime regardless of prognosis	91.3%	78.3%

Staff perception of the most likely explanation for why a terminal cancer patient with chronic pain would request increased doses of pain medication is:	Pre	Post
The patient is experiencing increased pain	91.3%	95.7%
The patient is experiencing increased anxiety or depression	8.7%	4.3%
The patient is requesting more staff attention	0.0%	0.0%
The patient's requests are related to addiction	0.0%	0.0%

Observable changes in vital signs or behavioral expressions of pain will be present if the patient has unrelieved pain.	Pre	Post
Pain intensity should be rated by the nurse, not the patient	100.0%	100.0%
If the patient can be distracted from his pain this easily means he does not have as high an intensity of pain as he indicates	91.7%	95.5%
Patients may sleep in spite of severe pain	95.7%	86.9%

Staff perception of how gender influences willingness to report pain	Pre	Post
Familiarity with alternative pain management interventions	95.7%	95.5%
Familiarity with hand massage to reduce a patient's pain	38.7%	27.3%
If you, patient indication of decreased pain	50.0%	46.7%
Requested for pain relief in order to reduce a patient's pain	0.0%	40.0%
If yes, did the patient indicate the therapy decreased their pain	0.0%	100.0%
Relative educational level of staff's pain management skills to improve the patient's pain	95.5%	100.0%
Providing patient education on pain management helps to improve the patient's pain	93.3%	90.9%



Pain Order Set Comments:

- Total 197 patients received Pain Order Set from June to December 2011
- Providers:
 - "This does not fit every patient's needs"
 - "It's early in the process, so it is sometimes hard to know which to use, but it gives you a lot of choices"
- RN's:
 - "I don't have to call the Dr. as much and my patient gets their pain medicine faster"
 - "It gives me options. If the first medication doesn't work, then I can move to something else right away"
- This needs further analysis



Pet Therapy:

- Total of 62 patients seen
- Total of 8 days approximately 2 hours per day (once a week for 8 months)
- Pain scores did not significantly change after the visits
- The effects were seen and heard from patients AND staff



Pet Therapy Results:



Sue: "I overheard many nurses ask three patients what they thought of Coppers visit- many of them really enjoyed it and said it helped their pain and made their day brighter- many asked if he was coming back soon."



Chronic pain pt. always requesting diazepam. RN's skeptical about whether pet therapy would be ok with her. Patient use to be a Vet Tech and has not been able to keep that job since she got sick - Copper and I were in there for 40 minutes while she looked in his ears, teeth - massaged him and brushed him. At one point she got on the ground with him- She states "He helped me more than you know"



This patient was in hospital for a long time due to need for IV antibiotics. Copper accompanied her on her daily walk around the unit. She held his leash as she pushed her IV pole around. She said, "It was nice to have such a nice dog to keep her company on her walk. She would be in the hospital for a few weeks and would like to visit with Copper again".



Spanish Speaking only female in the room with her husband and her 1 year old little boy was drawn to copper - pointing to his eyes, nose, teeth. The pain relief came when she saw her little boy relaxed and playing. The boy kissed Copper on the nose and said "bye dog".



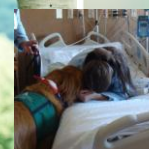
Pet Therapy Comments:



30 year old female- Traumatic brain injury - Physical Therapy invited us in to help patient focus on reaching with her injured hand- She was amazed by Copper and just wanted to pet him - PT was able to redirect her to pick up her injured hand and place it on his head- She wore a Crani helmet which could of scared Copper but it did not - She kissed him good bye and waved bye using her good hand to wave with her injured hand- Her mother was in the room and was so happy to see her interactive



A non-English speaking man - comfort care. RN's concerned he would not understand pet therapy because of his language barrier. We walked in and he said in English "DOG" and attempted to get up to visit with Copper. He sat on the edge of the bed and pet Copper not saying a word for 10 minutes. He hugged his good-eye and said "Thank You".



A very pleasant young female- She saw Copper from the door-way and yelled out- "A dog- Come here!" She instructed us immediately- She loved on him saying that he made her smile and that made her happy after being immobilized after a few days- She wanted me to leave him with her for a "Sleep Over"





Conclusions / Lessons Learned:

- Small Ns for the study
- Need more frequent data collection
- Target data collection to specific interventions with pointed objectives
- Patients in severe pain (constantly) decreased, relief from pain medication increased, average pain score of 10 in last 24 hours decreased
- Pain Order Set in early stage, positive direction so far
- Continuing education for Patients, RNs, and Providers
- Pet Therapy has benefits for both patients and staff



Future Direction

- Access to the Pain Toolkit
- RPE for Pain Management at Denver Health
- Upgrading Physician Ordering System
- Planning video for the inpatient channel
- Include in care planning conversation with the patient
 - Realistic patient goals
 - Should we use the 1-10 scale?
 - Discuss options with the patient
- Continue to utilize Pet Therapy
- Future projects/data collection/further research



Questions?



Thank you for your
attention