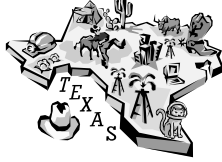


	<p>Development & Outcomes of an APRN Led Inpatient Pain Management Service</p>
	<p>ASPMN National Conference 2008 Tucson , Arizona</p> <p>Kimberly Rich, MS, APRN-NP Randall Hudspeth, MS, APRN-NP, FAANP</p>

	<p>Objectives</p>
	<ul style="list-style-type: none"> ■ Identify factors driving development of two different APRN pain management services ■ Describe steps in the developmental process of two different APRN pain management services ■ Discuss program and patient outcome measures as evidence of quality and success

	<p>Historical Perspective</p>
	<ul style="list-style-type: none"> ■ Increasing body of literature on the negative impact of pain on survival¹ ■ Studies indicating continued under-management of pain^{2,3,4} ■ Effect of uncontrolled pain on length of stay and readmission rates⁵ ■ Recognition of pain as the 5th vital sign & The Joint Commission's incorporation of new standards for pain management in 2001^{6,7}

Examples of Two Different APRN Led Pain Management Services



St Luke's Episcopal Hospital
Houston, Texas



Saint Alphonsus Regional Medical Center
Boise, Idaho

St. Luke's Episcopal Hospital and Texas Heart Institute



The Pain Management Program at St Luke's

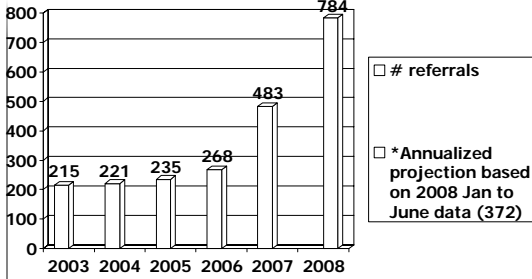
- Aims
 - To advance quality and consistency of pain management across all service lines and promote evidenced based practice in pain management
 - To broaden access to specialized pain management
 - To provide physical, emotional, and spiritual support to patients and their families

	<h2 style="text-align: center;">Texas and St. Luke's Requirements for Practice</h2>
	<ul style="list-style-type: none"> ■ State of Texas, MD delegation & supervision ■ Masters & APRN certification required ■ Criminal background check ■ Annual renewal using APRN credentialing process for St. Luke's ■ No medical director ■ APRN led consult service ■ Referrals accepted from MD's, RN's, allied health, patient or patient families ■ No prescribing ■ Collaboration with attending MD

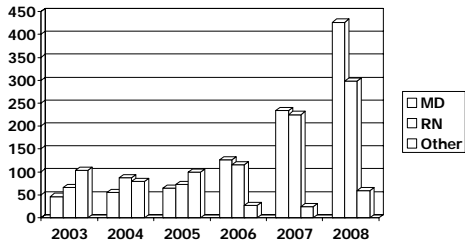
	<h2 style="text-align: center;">Aspects of Program Development</h2>
	<ul style="list-style-type: none"> ■ Trained pain resource RN's for every patient care area who attend regular pain committee meetings ■ Developed tools for pain resource RN's to educate staff AND to audit success ■ Implemented an automated referral process ■ Developed a program brochure ■ Provide ongoing education in internal newsletters, staff and to local nursing schools

	<h2 style="text-align: center;">Pain Consultation Services Provided</h2>
	<ul style="list-style-type: none"> ■ Automated Referral Process ■ Initial consult note and daily follow-up notes (M-F) ■ Assistance finding pain management MD for inpatient consultation ■ Recommendations for management of PCA, oral, and parenteral pain medications ■ Recommendations for equianalgesia dosing between agents ■ Recommendations for community follow-up and assist with identification of community resources for underserved patients ■ Patient discharge teaching

Annual Pain Management Referral Rates

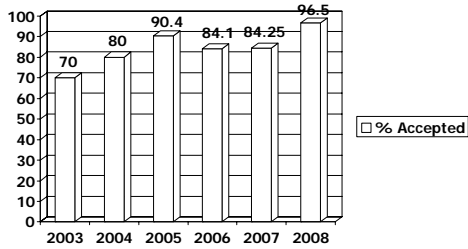


Referral Rates from MD's and RN's



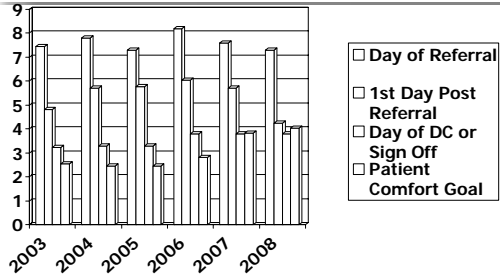
2008 data is an annualized projection based on data at time of submission

Percentage of Recommendations Accepted



2008 data is an annualized projection based on data at time of submission

Average Pain Scores Pre and Post APRN Referral



2008 data is an annualized projection based on data at time of submission

Saint Alphonsus Regional Medical Center

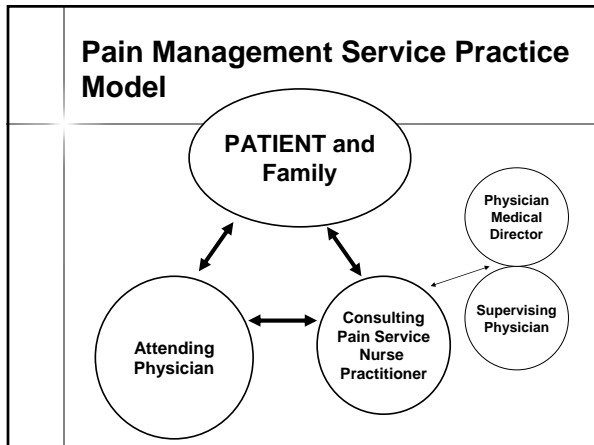
In-patient Pain Management Program



NP Credentialing Process

- State of Idaho, NP autonomous practice
- Hospital has supervised practice
- Paid Medical Director who supervises
- Relationship between NP and attending
- Annual renewal using credential process
- Requires DEA, Idaho narcotic license
- Criminal background check
- Primary sourcing of information

	<h3>NP Scope of Practice and Privileges</h3>
	<ul style="list-style-type: none"> ■ Consult with dictation + co-signature ■ Orders for medications, labs, tests without co-signatures ■ Daily rounding ■ Progress notes without co-signatures ■ Initiate and modify plan of care ■ Discharge summary with co-signature

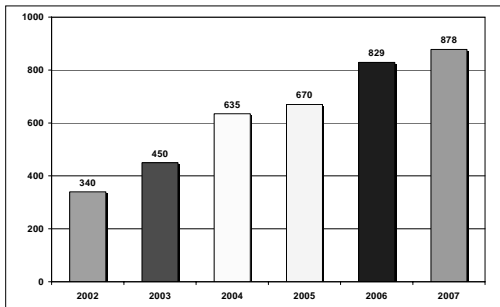


	<h3>Services Available</h3>
	<ul style="list-style-type: none"> ■ Management of PCA, oral, intrathecal pain medications ■ Analysis and program of intrathecal pump ■ Equianalgesia dosing between agents to maintain pain control ■ Always a NP on call 24/7 to manage pain issues, so nurses call the NP at night and not the MD ■ Discharge prescriptions for up to 2 weeks supply without refill written by NP ■ Coordination of a follow-up OP pain office visit ■ Discharge taper dose plan & teaching ■ Short term medication management of illicit drug users

Organization Outcomes

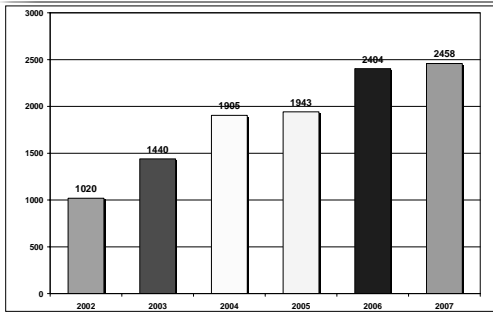
- Increased Patient Satisfaction Scores
- Contribution Margin
- Advanced Practice Nurse resource to staff—Magnet requirement

Physician Requested Consults

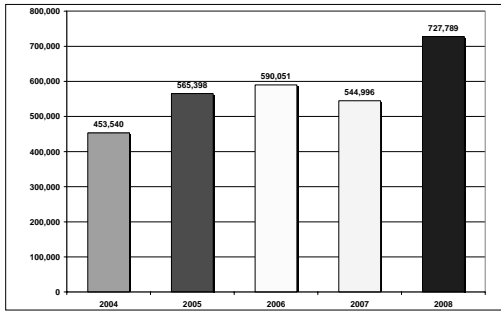


Follow-up Visits

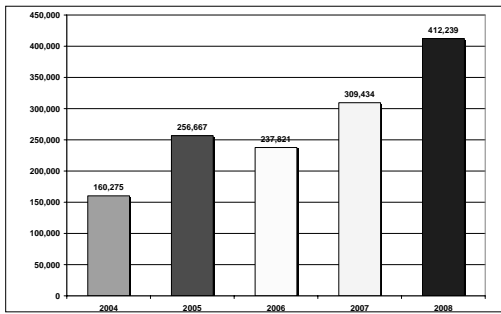
Overall decrease from 3.0 to 2.8 per consult



Revenue Received



Contribution Margin



Practice Outcomes

Build relationships with physicians and nurses to impact prescribing behaviors.

- Minimized the use of Demerol
- Participate in order set development
- Interacted with P&T Committee to improve the hospital formulary for pain meds, i.e. Avinza, Fentora, Kadian, Opana, delete Actique

	<h3>Patient Outcomes</h3>
	<ul style="list-style-type: none"> ■ Satisfaction scores ■ Reversal agent use ■ Referrals and other support systems

	<h3>Patient Satisfaction Scores</h3>
	<p>The <u>Physical Comfort</u> dimension includes: Did everything to help pain Pain well controlled during stay</p> <p>MANUAL PROCESS to link responses to patients seen by Pain Service NPs.</p> <p>12 charts between July 2005-June 2006 14 charts between July 2006-June 2007 9 charts FYTD 2007-2008</p> <p>OUTCOME Average Score for all patients=<63% Average score for patients followed by Pain Services= 96.4%</p>

	<h3>Monitor the Number of Reversal Agents Used</h3>
	<ul style="list-style-type: none"> ■ Objective: Provide an analysis of reversal agent use, primarily Narcan, for calendar year 2007 and comparative data for 2004, 2005 and 2006. ■ Method: manual comparison of <ul style="list-style-type: none"> - Incident report analysis - EMR report - Pharmacy reversal agent distribution list.

Monitor the Number of Reversal Agents Used

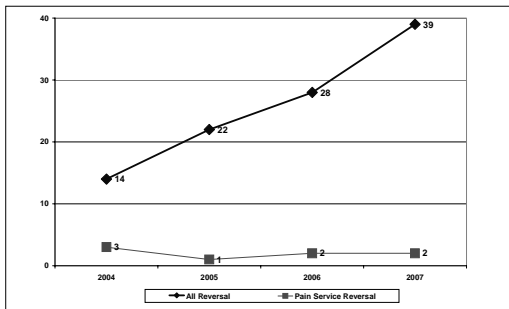
Data Items evaluated include:

- Reason for administration
- Narcotic administration in previous 12 hours
- Patient response
- Patient location (nursing unit)
- Patient on a PCA or other pain device (epidural or intrathecal pumps)
- Time of day
- Other variables such as procedures, surgery, drug history, etc.

2007 Summary:

- 136 EMR entries evaluated. Some were not related to reversal agent use. Most patients had sedation evaluation 3 to 8 times after a reversal agent given.
- Incident reports, including out-patients, were compared to inpatient reports. The majority of out-patient reports involve endoscopies.

Reversal Agent Use 2004 - 2007



Long term Prescription or Illicit Drug Use Support

- Referral to outpatient treatment.
- Negotiated times for immediate discharge appointments to Outpatient Pain Center
- Addiction Recovery Referral
- Organized drug tapering programs

	<h1>Thank You</h1> <p><i>We hope it was not too painful!</i></p>

	<h2>References</h2>
	<ol style="list-style-type: none"> 1. Staats, P.S. (2003). The Effect of pain on survival. <i>Anesthesiology Clinics of North America</i>, 21, 825-833. 2. Apfelbaum, J.L., Chen C., Mehta, S.S., et al. (2003). Postoperative pain experience results from a national survey suggest postoperative pain continues to be under managed. <i>Anesth. Analg.</i>, 97, 534-540. 3. The SUPPORT Principal Investigators (1995, November). A controlled trial to improve care for seriously ill hospitalized patients. The study to understand prognoses and preferences for outcomes and risks of treatments (SUPPORT). <i>JAMA</i>, 274, 1591-1598. 4. Partners Against Pain. <i>Barriers to pain management</i>. Retrieved May 5, 2008, from: http://www.partnersagainstpain.com/professional-advocacy/pain_management.aspx?id=5

	<h2>References continued....</h2>
	<ol style="list-style-type: none"> 5. Hutchison, R.W. (2007). Challenges in acute post-operative pain management. <i>Am J Health Syst Pharm</i>. 64(suppl 4), S3-S5. 6. Merboth, M.K., Barnason, S. (2000). Managing pain: the fifth vital sign. <i>Nurs Clin North Am.</i>, 35 (2), 375-383. 7. Joint Commission on Accreditation of Healthcare Organizations. New standards to assess and manage pain. Retrieved May 5, 2008, from: http://www.ampainsoc.org/pub/bulletin/jul00/pres1.htm 8. Pearson, L. J. (2008). The Pearson Report: The annual state-by-state national overview of nurse practitioner legislation and healthcare issues. <i>American Journal for Nurse Practitioners</i>, 12 (2), 4-80
