The Central Role of Nursing in the Assessment and Management of Patient Controlled Analgesia

A CE Breakfast Symposium at the ASPMN 2008 Annual Meeting

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This symposium is sponsored by an educational grant from Smiths Medical MD, Inc.
Agenda

7:00 AM  Welcome and Introduction

7:05 AM  Nursing Strategies for Improving PCA Safety
         Renee Manworren, MS, RN-BC, CNS

         Using Nursing Assessment of PCA Data to Improve Patient Safety
         Claudia Campbell, BSN, RN-BC

8:05 AM  Case Study Presentation

8:15 AM  Questions and Answers

Statement of Need

The past decade has demonstrated an unprecedented focus on improving patient safety in the delivery of health care, including pain management. Processes associated with Patient Controlled Analgesia have been identified as high risk or likely to result in error and/or adverse drug events. Introduction of intelligent infusion pump technology, sophisticated mechanical monitoring devices, and medication identification technology have all contributed to improved patient safety.

Now, more than ever before, it is imperative that the central role of the nurse at the bedside is acknowledged and appreciated as the most important factor in improving patient safety. The role of the bedside nurse is supported through proper application of new technologies, but they must be used in conjunction with skilled nursing assessment and management to ensure the best possible outcome for patients receiving Patient Controlled Analgesia. Updating and expanding upon the nurse’s basic knowledge of Patient Controlled Analgesia specific patient assessments and management techniques will enable the nurse to function in his or her role more effectively.
Learning Objectives

At the conclusion of the symposium, participants should be able to:

1) Summarize the benefit of PCA specific nursing assessments.

2) Describe common patterns of PCA utilization that may indicate a change in the patient’s status.

3) Discuss the role of nursing in the prevention of adverse events associated with use of PCA.

Accreditation

This continuing education activity has been submitted to the New York State Nurses Association, an accredited approver by the American Nurses Credentialing Center’s Commission on Accreditation (ANCC).

Disclosure

Faculty Financial Disclosure Statements

The presenting faculty reported the following:

Ms. Manworren has received honoraria from Smiths Medical MD, Inc.

Ms. Campbell has received honoraria related nursing advisory board activities from Cephalon and Smiths Medical as well as consultant fees from Smiths Medical and PharMEDium. Ms. Campbell accepted a position as an employee of Smiths Medical shortly before presenting this symposium.
Renee Manworren is a pediatric clinical nurse specialist and currently the Director of Clinical Practice Development at Texas Scottish Rite Hospital for Children. Ms. Manworren has produced numerous publications in a variety of formats, including written, video, coloring books, and web-based continuing education, for health care professionals, as well as for patients and families, to improve our knowledge, understanding, and response to children's pain. Ms. Manworren has been an invited speaker or poster presenter at more than 100 events at the national and international level. She is master faculty of the American Society for Pain Management Nursing (ASPMN) and has served on several task forces since becoming a member of the Society in 1998. Ms. Manworren is also a member of the American Pain Society’s Clinical Practice Guidelines Committee. Ms. Manworren has received several awards and honors including the Society of Pediatric Nurses Excellence in Advanced Practice Award and has been named one of the Great 100 nurses in Dallas/Ft Worth Texas.
Claudia E. Campbell is a Pain Management Educator and Clinical Consultant who speaks nationally on issues related to pain management and patient safety through implementation of evidence based nursing practices. Claudia consults with hospitals and healthcare systems assisting with implementation of pain management teams and pain management standards, quality improvement projects, and healthcare provider relations and education.

Claudia has focused her nursing practice on the management of acute postoperative and trauma pain management for the past 13 years. Formerly of Intermountain Healthcare, she co-founded and co-directed the Anesthesia Pain Management Service within LDS Hospital, Intermountain’s flagship Trauma I Center in Salt Lake City, Utah and served as chair of Intermountain Healthcare’s corporate Pain Management Workgroup with responsibility for coordinating pain management standards and care throughout Intermountain Healthcare’s 27 hospitals. Her work on a variety of pain management topics has been published in text books, journals, and web based applications. She is active in local and national pain management organizations. She has been an active member of ASPMN and has served on many committees and task forces. She is a past director and is currently serving as Chair of the Communications Committee.
Nursing Strategies for Improving PCA Safety

Renee Manworren, MS, RN-BC, CNS
Director, Clinical Practice Development
Dallas, Texas
The Central Role of Nursing in Assessment and Management of Patient Controlled Analgesia

Presented by: Renee Manworren, MS, RN-BC, CNS
Claudia Campbell, BSN, RN-BC

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Nursing Strategies for Improving PCA Safety

Renee Manworren, MS, RN-BC, CNS

- Identify current forces surrounding PCA safety
- Summarize the benefit of PCA specific nursing assessment

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Healthcare Failure Mode Effects Analysis for IV Patient Controlled Analgesia

Prescribing
Dispensing
Administration
Monitoring


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Healthcare Failure Mode Effects Analysis for IV Patient Controlled Analgesia

Prescribing:
• Inaccurate pain assessment
• Wrong analgesic selection
• Wrong dose (loading, PCA, constant, lock-out, route, frequency)
• Proper patient monitoring not ordered
• Wrong patient


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Healthcare Failure Mode Effects Analysis for IV Patient Controlled Analgesia

Dispensing:
• Order not received/processed in pharmacy
• Delay in receiving/processing order
• Order misunderstood
• Order entered in correctly
• Order entered into wrong patient profile/wrong encounter
• Label inaccurate, label unclear
• Wrong drug, wrong diluent, wrong dilution/concentration
• Incomplete or inadequate medication check before distribution
• Medication delivered to the wrong unit


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Healthcare Failure Mode Effects Analysis for IV Patient Controlled Analgesia

Administration:
• Order/Medication Administration Record misunderstood
• Order transcribed incorrectly
• No pump available
• Wrong patient
• Wrong drug, wrong concentration, wrong route
• Wrong dose, pump mis-programmed, incomplete or inadequate pump check, wrong flow rate

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Healthcare Failure Mode Effects Analysis for IV Patient Controlled Analgesia

Administration:
• Adequate staffing patterns
• Environmental and workflow improvements
• Engaging staff in a culture of safety

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Healthcare Failure Mode Effects Analysis for IV Patient Controlled Analgesia

Monitoring:
• Insufficient monitoring of effects of PCA

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Clinical Staff Resource Use with Intravenous Patient-Controlled Analgesia in Acute Postoperative Pain Management: Results from a Multicenter, Prospective, Observational Study

Focus on processes prior to initiation of PCA:

- Evaluating pump use and settings
- Assessing the IV site
- Evaluating and addressing analgesia side effects
- Instructing/reinstructing the subject on PCA use
- Administering supplemental pain medications,
- Assisting with self-care or moving the subject, and
- Assisting the subject with use of the button


Focus on processes prior to initiation of PCA

- Patient Selection
  - Able to understand relationship between pain, requesting PCA, and analgesic effects
  - Able to self-administer PCA
  - Environmental and social circumstances supporting safe delivery of PCA – unauthorized PCA (ASPIMN position paper)
  - Co-morbidities – emerging risk assessment strategies
- Patient Education

Monitoring the Patient response

- Quality of analgesia, respiratory, sedation
- Analgesia side effect assessment
  - Use of mechanical monitoring
- Reassess, reassess, reassess
- Transition to or addition of alternative analgesic method
Using Nursing Assessment of PCA Data to Improve Patient Safety

Claudia E. Campbell, BSN, RN-BC
Pain Management Educator and Clinical Consultant
Salt Lake City, Utah
Using Nursing Assessment of PCA Data to Improve Patient Safety

Claudia Campbell, BSN, RN-BC

• Describe common patterns of PCA utilization that may indicate a change in the patient’s status
• Discuss the role of nursing in the prevention of adverse events associated with the use of PCA

Looking Back on IV PCA

• Where have we been and what can we learn from our roots?
  - BB Roe - 1963

Dr. Philip H. Sechzer
State University of New York
Brooklyn, New York
Sept. 1914 – Sept. 2004
Sechzer’s Early Conclusions


Patients Respond Individually

- “Each patient seems to be consistent in his analgesic demand, although there is great variation among patients.”
Looking Back on IV PCA

• Why did these early developers feel documentation of PCA doses requested and received was a necessary capability of IV PCA devices?

What Can We Learn From Our Roots?

• Are PCA dose counters an important piece of the nursing assessment?

• What do nurses do with this information if they assess it?

What could nurses do with this information to add another layer of improved patient safety?
Case Study

• Jan is a 42 year old female patient who is s/p abdominal hysterectomy

• She is otherwise healthy with no identified co-morbid conditions

• She is opioid naïve and this is her first surgical intervention

Case Study

• PACU reports having some initial difficulty controlling her pain, but after titration of 10 mg of morphine, she is resting comfortably

• IV PCA morphine has been initiated

• It is 1330, and she is ready for transfer to the acute care unit
Postoperative day one: a high risk period for respiratory events

- “77.4% of patients having a respiratory event suffered that event in the first 24 hours”
- “Of those patients, 56.5% suffered an event in the first 12 hours after surgery”
- “The mean time to event after the end of surgery was 20.48 ± 25.58 hours”


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Summary

- “PCA is not a “set and forget” or a “one size fits all” therapy

- “Effective and safe use of PCA requires frequent patient assessment, adjustment to PCA orders as needed, and a knowledgeable nursing staff”


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Summary

- Nurses play a vital and central role in improving PCA safety that cannot be mimicked or replaced by the use of technology

- Technology is a valuable tool that can assist the nurse – but it must provide accurate, easy to access and easy to use data about the patient’s response to opioids

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Questions – Discussion?

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Thank You

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Additional Notes