Pain Management Outcomes: Issues For Advanced Practice Nurses

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Abstract

The common complaint of unresolved pain still beleaguers caregivers. This article summarizes some of the factors in poor pain management, including knowledge/education deficiencies, lack of assessment and documentation; inappropriate drug choice, route, and scheduling; and failure to use appropriate non-pharmacological adjuncts. Best practice for general pain management is presented, including web-sites for clinical guidelines. Research-based approaches to management of acute pain have particular relevancy for advanced practice nurses in all settings. This article describes pragmatic tools such as national guidelines and educational videotapes in English and Spanish. The Pain Management Report Card, comparing desired target versus actual findings and a new tool for Formative Evaluation present two methods for determining effectiveness of pain management. The Pain Management Index (PMI) is explained as a way to quantify how well pain is managed with pharmacological intervention. Caregiver interactions with patients are a major factor in patient responses to pain management, and instructions for change are discussed.

A patient was admitted to the emergency room, reporting that she had suffered a severe fall. It was obvious that she was in pain according to the Emergency Medical Technician notes, "the fracture was open and bone was showing." The nurse then conducted the standard trauma assessment, and then approached the Emergency Department physician for an order for pain. The physician inquired, "Has she had an x-ray? I do not want her to have anything for pain until we confirm that she indeed has a fracture." After the x-ray confirmed the fracture, the nurse again approached the physician for a pain medication order. At that time, he ordered Demerol 50 mg. and Phenergan 25 mg. intramuscularly (IM). The nurse suggested the intravenous route (IV); the physician said "No, the IM route would last longer". Unfortunately, this is an example of poor pain management that occurs everyday in clinical practice.

In spite of the unparalleled progress in health care in the past two decades, clinicians have not been able to maintain consistent outcomes for the common complaint of pain. Advanced practice nurses (APNs) are on the front lines of care and thus in a position to assess and intervene to manage pain more effectively. Moreover, APNs need to be change agents for how pain is managed by the entire team. Influences on the health care environment are bringing renewed interest to correcting this problem, including new pain standards required in 2001 by the Joint Commission on Accreditation of Healthcare Organization which are described at this web-site: http://www.jcaho.org/standard/pm_frm.html1

The purpose of this article is to discuss some of the factors involved in mismanagement of pain and to discuss effective tools and best practices for pain management. This topic is important because inadequate pain control results in unnecessary pain and suffering. Furthermore, mismanagement of pain has physiological, psychological, and financial consequences. Ferrell cited slowed healing, higher complication rates, anxiety, sleep disturbance and lowered quality of life as results of poorly managed pain.2 Unscheduled readmissions for pain control, delayed return to work, and longer periods of poor role function/performance compound the problem for a substantial economic impact.3

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FACTORS IN MISMANAGEMENT OF PAIN

There are many factors involved in the mismanagement of pain, and they involve caregivers and patients/families. Some of these factors include a general undertreatment of pain in approximately one-third to one-half of all hospitalized patients.[4-7] At special risk for undertreatment are ethnic minorities[4,8,9] and the elderly.[5,6,10] Recent work has demonstrated that gender variations are important in pain management, with women being at risk for mismanagement.[11,12]

The lack of consistent and accurate documentation of assessment of the pain experience by caregivers is also problematic.[13] Other problems revolve around using p.r.n. (given as needed) rather than scheduled analgesics when pain is to be expected, e.g., the first 36- 48 hours after surgery.[15] Moreover, the type of analgesic may not be appropriate, e.g. Demerol usage is problematic because of dosage and duration.[16] The continued use of intramuscular route of administration rather than the recommended oral or intravenous routes is another frequent area of mismanagement.6,16 Non-pharmacological adjuncts such as massage and relaxation, are not fully utilized in pain management, even though their effectiveness has been documented.[5,6,13,17]

The patient and family factors in ineffective pain management start with misunderstandings and lack of knowledge about expectations for pain relief.[14,16,18] Moreover, patients/families may judge pain on the basis of false beliefs or myths.[5,6,19,20] To further complicate the picture, patients may indicate satisfaction with pain management by nurses and physicians, yet still be in pain or report high intensity of pain.[5,6,21,22,23] Given the interaction of all these factors, what guidance is available to assist the

APN and other caregivers?

BEST PRACTICE AND TOOLS FOR PAIN MANAGEMENT

Best practice for pain management includes the use of clinical guidelines, assessment tools, report cards, and Pain Management Index (PMI) scoring. Two additional significant factors in managing pain are the patient-nurse interaction and education for the patient/family throughout the treatment period.

GUIDELINES

Best practice guidelines have been developed by both the Agency for Health Care Policy and Research (AHCPR) and the American Pain Society (APS).16,[24] Incorporating these guidelines into practice, regardless of setting, should have very positive outcomes.

In order to promote high standards of pain management, the AHCPR developed the document Clinical Practice Guidelines for Acute Pain Management: Operative or Medical Procedures and Trauma which outlines collaborative and interdisciplinary approaches to pain control.16 The guidelines provide a clinically useful standard of care. Guidelines emphasize the significance of accurate and comprehensive assessment to establish an approach to pain management. The AHCPR guidelines offer various assessment tools for clients with low literacy and language barriers. The guidelines are available at no cost, and they are published in three forms: (a) Clinical Practice Guidelines, (b) Quick Reference Guidelines for Clinicians, and (c) Patient's Guide. (Note: at the time of this writing, the Agency for Health Care Policy and Research is undergoing a change in its name to the Agency for Healthcare Research and Quality.)

APS is another group that has exerted efforts to improve the quality of care in pain management.24 The APS guidelines for the treatment of acute pain are readily available at no cost to both health care providers and patients. The web-site is: http://www.ampainsoc.org
Best practice for pain management starts with educating the patient and family about the importance of managing pain, how it will be assessed, and what they should expect the caregiver response to be during the treatment period. It is the responsibility of the system of health care delivery to provide the structure and process to insure that these guidelines are being followed. APNs, who are front line providers and decision makers, can make sure the process of care includes informing patients of the importance of their pain management, using scheduled versus as needed medication, and employing the range of technologies and non-pharmacological modalities in the pain management plan response.

ASSESSMENT TOOLS

Patients are credible judges of their pain and their self-reports should be accepted as the basis for planned intervention. Pain assessment should cover pain intensity, location, and characteristics, as well as pain-related interference with activity. Poorly assessed pain is compounded by poor documentation of the pain experience in the patient record. It may be only sporadically charted, and even so, may be inconsistent in its location in the medical record. Federwisch described a recent movement spearheaded by the American Pain Society and endorsed by the Tri-Council for Nursing (the American Association for Colleges of Nursing, the American Nurses Association, the National League for Nursing, and the American Organization of Nurse Executives) that has gained momentum to consider pain as the fifth vital sign, and thus chart it at the same time and in the same place in the medical record as the temperature, pulse, respiration, and blood pressure.[25] Increasingly, health care agencies are implementing this strategy in policies and procedures.

Collins, et al. advocate the adoption of a single, appropriate, self-report, pain-rating scale.[26] McCaffery and Pasero present several tools which may be duplicated for clinical usage.[27] These tools are available in several languages. Using a numerical pain rating scale of 0 (no pain) to 10 (worst pain possible), McCaffery and Pasero advise that pain ratings of 4 or higher interfere with comfort and functioning, and ratings of 6 or higher adversely affect quality of life.[28]

How can APNs promote improved assessment and documentation? One strategy to provide appropriate and timely assessment and intervention is to incorporate these steps into critical pathways and case management.[29] These two modalities are designed to encourage best practices, resulting in outcomes of high quality of care at least cost. Best practice must include sensitivity to populations at risk, including ethnic minorities and the elderly. Specialty populations are often overlooked and educational materials often do not consider their uniqueness. In a project to develop a culturally-sensitive educational offering about pain and pain management, nurse researchers were funded to produce culturally sensitive instructional videos for both health professionals and Hispanic lay audiences. Videos or

C.D.'s are available for purchase from:

The University of Texas Health Science Center at Houston
1100 Holcombe Blvd.
Houston, TX 77030
(713)-500-2022
http://sonser4.nur.uth.tmc.edu/
e-mail address: ericks@son1.nur.uth.tmc.edu

REPORT CARDS

How can APNs measure overall performance in pain management? The Report Card model presented by Starck, et al. reflects a summative, systems level approach, reporting pain experiences and patient satisfaction.[7] The Report Card uses nine indicators significant to pain management and compares the "desired target" set by caregivers to the actual findings regarding their patients. Targets include such factors as percentage of patients who received information on the importance of pain management, ratings of pain intensity, level of interference with activities, and reported wait time for medication. This monitoring system will help an agency identify where its goals are not being met. This information will allow planning at the root cause level to institute effective pain management processes.

A formative evaluation approach is proposed by the authors for giving instant feedback about patient satisfaction with pain management during the pain experience. The purpose of the formative tool is to elicit information needed for immediate course correction. One might design a daily or even an 8- hour period for the frequency of evaluation. It would be focused specifically on the individual patient. This tool has two separate parts: one for the caregiver and one for the patient to be completed separately and later matched (See figures 1 and 2). By using this tool there will be closer monitoring and earlier intervention. In addition to yielding good information, it serves to reinforce with the patient the importance of controlling pain.

PAIN MANAGEMENT INDEX

Another useful tool is the Pain Management Index (PMI) designed by Cleeland, et al. who studied patients being treated for cancer related pain.4 The PMI, measuring the adequacy of pain management, was computed using the worst pain rating and the most potent analgesic ordered. In this methodology, the 1-10 pain intensity scale is collapsed into three categories, with 1 being mild(1-3), 2 being moderate (4-7), and 3 being severe(8-10). Analgesics are classified according to the World Health Organization (WHO)(1986) analgesic ladder, also a 1-3 scale (1= non-opioid; 2= mild opioid; 3= strong opioid).[30] A good graphic representation of the ladder with examples may be found at the following web-site at the University of Texas Health Science Center at Houston:
http://sonser4.uth.tmc.edu/dean/who.htm[31]

The pain intensity level is then subtracted from the ranking of the analgesic ordered to calculate the score or index. For example, if the patient's pain is a 3 and only a category 2 analgesic is ordered, the pain management index is a –1, indicating that the patient is undertreated for pain. The PMI provides a quick way to assess adequate treatment appropriate for APNs.

NURSE-PATIENT/FAMILY INTERACTION

What can be done to encourage patients and families to participate effectively in pain management? During patient admission, or before if possible, information should be given explaining that the comfort/function goal is based upon a pain rating that allows performing activities that ensure a satisfactory recovery or quality of life.26

As noted by Ng, et al., the provider is but one part of the required interaction needed for pain management.18 Patients also have a responsibility to work with the provider regarding assessment, implementation and evaluation of the pain management plan. Likewise, patients have the responsibility to become informed regarding the pain experience and the important role they can play. In the present health care system, patients/consumers are beginning to assume these responsibilities and show assertiveness in health care decisions. However, these are relatively new trends, and recent developments toward a more consumer oriented system may not yet be incorporated into all patients' health behaviors.

Collins, et al., suggested acknowledging that all patients have a right to appropriate pain management, and making sure that pain control is included in the facility's patients' bill of rights.26 These authors also suggested that the principle of the patients' right to pain control be used in developing pain management protocols.

Public education regarding pain management approaches and the evolving, primary role of the patient as a partner in pain control, is needed. Both ethnic minority and older patients are particularly vulnerable to under management and thus should be targeted for culturally and age appropriate educational efforts. APNs must make special

efforts to institute active assessment of pain in this vulnerable group, rather than relying on self-reports.

The influence of ethnicity on pain assessment, management and clinical outcomes, including patient satisfaction, has been relatively understudied in the literature. In some cultural groups, values, such as maintaining harmonious interrelationships and deference to those considered to be medical authorities, may inhibit the accurate assessment of satisfaction. Educational efforts must be planned that incorporate culturally sensitive approaches while delivering the important message that all patients need to be partners in their pain management and actively participate in assessment, management decisions, and evaluation of the effectiveness of pain management strategies. How can APNs and others best interact with patients and families to promote these partnerships?

In a qualitative study of hospitalized patients' satisfaction with pain management, a critical factor emerging from the data was the patient view of health care providers, both nurses and physicians.20 Patients described the interaction of patient and caregiver as pivotal in effective care. Four factors were identified from the patient perspective: caring/uncaring responses, timeliness, attentive action and informative interactions. The patients' views on effective caregivers established guidelines for interactions:

1. Recognize and affirm the patient's pain.
2. Express that relief of pain is the norm (not "normal to have pain").
3. Regularly assess pain intensity. Expect patient to voice needs (not convey that "good patients don't complain")
4. Regularly monitor outcomes of pain management.
5. Take steps to avoid hurting the patient needlessly, as in moving the patient.
6. Tell patient in advance what to expect.
7. Involve patient in treatment plans.
8. Explain why the patient is feeling pain.
9. Explain what pain medication will specifically address (versus "it will knock you out" or other general information)
10. Express caring and concern and be friendly, sensitive, kind, optimistic, cooperative and respectful.
11. Listen attentively and respond to needs
12. Offer reassurance and comfort to family
13. Spend time with patient
14. Respond quickly and intervene in a timely manner
15. Inform patient of the goal of pain management strategies and answer questions.

SUMMARY

In summary, there are disturbing findings in the research literature indicating that the problem of pain management for patients in acute care settings has not been resolved. Specific elements of this problem have been examined. Tools have been offered, including guidelines, survey instruments, methodology for calculating the degree of undertreatment, and report cards to enable APNs to effectively manage pain. Suggestions for best practices have been given, including education and caring approaches, from the time the patient enters the hospital or ambulatory service until after discharge. APNs, equipped with knowledge and skills, can more effectively manage pain and help to solve this problem once and for all.

Figure 1

Formative Evaluation by Provider- Pain Management

Patient's Name_____

Rm. No._____

Date/Time:_____ _____

1. Patient's intensity on scale of 1-10 this 8 hrs. (0= no pain to 10= worst pain imaginable)

0 1 2 3 4 5 6 7 8 9 10_overall

0 1 2 3 4 5 6 7 8 9 10_worst time

0 1 2 3 4 5 6 7 8 9 10_least time

2. Pain was relieved (0= completely relieved; 10= not relieved at all).

0 1 2 3 4 5 6 7 8 9 10

3. PRN medicine given within 10 minutes of request.

____yes ____no, but within ____ minutes. Reason for delay_____

4. How satisfied with pain management do you think the patient is? (0= not satisfied at all; 6= completely satisfied)_____

0 1 2 3 4 5 6

5. To make things better, I recommend the following:_____
_____

Figure 2

Formative Evaluation by Patient- Pain Management

Patient Name_____ Room No.____
Date/Time_____

1. My pain intensity on a scale of 0 ((no pain) to 10 (worst pain imaginable) was as follows for this past 8 hours:

0 1 2 3 4 5 6 7 8 9 10__overall

0 1 2 3 4 5 6 7 8 9 10__ worst time

0 1 2 3 4 5 6 7 8 0 10__ least time

2. My pain was relieved (0= completely relieved to 10= not relieved at all).

0 1 2 3 4 5 6 7 8 9 10

3. Pain medication I had ordered if needed was given within 10 minutes of my request ___yes ___ no, but within ___minutes.

4. How satisfied are you with pain management? (0= not at all satisfied to 6= completely satisfied)

0 1 2 3 4 5 6

5. To make things better, I'd like the following done:_____
_____

6. Person completing this evaluation: ____patient _____family member ____friend

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