



Clinical Update

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Is Your JCAHO Visit Sounding *Painful*?

As of January 2001, the Joint Commission on Accreditation of Healthcare Organizations' new standards for evaluating how well hospitals evaluate and manage their patients' pain went into effect¹. These new standards have helped hospitals focus on pain management, a major concern of patients, particularly those having surgery. In fact, 87% of postoperative patients have pain that is moderate, severe or extreme². We now pay more attention to monitoring patients' pain over time and to the effectiveness of our various pharmacological and nursing practice interventions to make patients more comfortable.

While a major focus is on postoperative and post-procedural pain assessment and management, another aspect is equally important. Nurses need to know what actually causes pain, and how can we influence product choices that can affect the amount of pain a patient feels after surgery or after a procedure, such as chest tube insertion.

What Is Pain?

The International Association for the Study of Pain defines pain as "...an unpleasant sensory and emotional experience associated with actual or potential tissue damage..."². That definition is based on pathophysiology. Pain expert and registered nurse Margo McCaffery, in contrast, provides a patient's perspective. She defines pain as whatever the person experiencing it says it is³. A wholistic nursing approach to managing patients' pain integrates both definitions.

Pain can actually be beneficial. It can limit movement and activities that could cause injury; it can alert a patient or caregiver to a complication, injury, or underlying disease; and it can limit additional tissue injury². However, pain stops being beneficial when it becomes severe and has a negative effect on patient outcomes.

What Causes Pain?

Pain occurs when there is mechanical disruption of tissues that stimulates mechanical and polymodal pain receptors, called nociceptors. This mechanical disruption can result from tearing, stretching, cutting or compressing tissue. In addition to this mechanical stimulation of nociceptors, chemical mediators are also released that intensify the pain sensation at chemoreceptors located throughout the body. Most pain receptors are free nerve endings located in the skin, periosteum, joint surfaces, arterial walls, subcutaneous tissues, muscles, viscera and fascia⁴.

This understanding of pain has led to the ongoing development of less invasive surgical methods such as laparoscopic, arthroscopic, and thoracoscopic surgery, and techniques such as using smaller tunneling devices when placing vascular grafts. The less tissue cut, disrupted or damaged, the less pain a patient will have postop. Therefore, the risks of unresolved pain are diminished, and recovery time is shortened.

How Do Procedures Cause Pain?

Pain typically occurs through two mechanisms when surgery or a procedure is performed on a patient. First is the initial penetration of tissue resulting from the incision and other mechanical disruption of tissue that stimulates pain receptors. The second aspect is a cellular reaction to any object that is left or implanted in the body, such as a chest tube, surgical mesh, vascular graft, pacemaker, or artificial joint. The term bio-

compatibility is used to describe how well a substance interacts within a biological system. The more biocompatible an object is, the better it is accepted by the tissue. The less biocompatible an object is, the greater the tissue reaction.

Tissue reactions associated with implanted materials include a chronic inflammatory response, an increased risk of infection related to this ongoing inflammatory response, and formation of adhesions and thrombi. If an infection occurs, there is an increased risk of extensive fibrin deposits⁵.

Each of these reactions can cause pain during the immediate postoperative or post-procedure period by stretching or compressing tissue alongside the implanted object. Research has also shown that tissue reactions can continue to cause pain in the recuperative phase and may limit a patient's ability to return to usual activities of daily life⁶. One study described the concept of a "chronic wound" that may occur when an implant is not smoothly integrated into the surrounding tissue and a significant inflammatory response continues long after the surgery is performed⁵.

Preventing Pain Before It Starts

As nurses, we don't necessarily choose the products that are implanted during surgery or other procedures. However, we take care of patients after surgery and procedures, and can share information about how implanted materials are integrated into a patient's own tissue with our physician colleagues. The goal is to use products with the highest biocompatibility, those least likely to result in long-term tissue reactions and ongoing patient discomfort.

Advantages of highly biocompatible materials include:

- reduced inflammation, adhesions and infection
- low potential for reactions with surrounding tissues
- shortened length of time of any inflammatory response
- reduced risk of thrombus formation
- better healing
- potential for shorter recovery time

The role of the nurse, as always, is to be the patient's advocate. When participating in product evaluation, be sure to ask about a product's biocompatibility and ask a company to provide research data that describe the tissue response to the implanted material. Stopping pain before it starts by choosing the most biocompatible products is patient advocacy at its best.

Check Your Knowledge...

Q. A patient receiving mechanical ventilation points to the right side of his chest. The high pressure alarm is sounding on the ventilator, with no obvious cause. When you listen to the chest, breath sounds are significantly louder on the left side and you hear no gallop heart rhythm. You see jugular venous distension. What is this patient's problem and what emergency procedure(s) should you prepare for?

Answer on other side

In The Literature

We usually provide abstracts of articles for managers and educators. In this special pain issue, we review two clinical articles about pain management that have implications across the continuum of care.

Speaking The Same Language

An article in the February issue of the *American Journal of Nursing* describes how a group of nurses in Missoula County, MT used a three-year grant to "reduce the physical and psychological toll of pain and its consequences."

While hospitals are working on their pain management programs to meet JCAHO standards, this group took a wider view to establish a community-wide pain management standard of care so that everyone could easily communicate about pain and achieve the best patient outcomes. After setting objectives, they began the program in 1997 by developing a uniform pain-rating scale. They established strategies to uncover and overcome barriers to proper pain management.

In 1998, they started their intervention to educate health professionals and the public. They wanted health professionals to be up-to-date with evidence-based practice in pain management. They wanted patients to understand the importance of proper pain management in their recovery and to overcome their fears about "taking narcotics."

In 1999, they evaluated the program. They found that most members of the community learned to speak the same language of pain, and a continuous quality improvement plan is in place. They are currently conducting a follow-up study. If you'd like to expand your horizons to bring pain management beyond your hospital walls, you'll find some great tips here.

Source: Mayer DM, Torma L, Byock I, Norris K: Speaking the language of pain. *American Journal of Nursing* 2001;101(2):44-49.

Are You Narcophobic?

If you review the literature about pain management, you'll learn that before effective pain management can occur, barriers must be overcome. Narcophobia doesn't discriminate — it strikes nurses, patients and physicians. This irrational fear of using pain medication results in untreated pain and unnecessary suffering for countless patients.

The first part of a comprehensive two-part article about narcophobia appears in the February issue of *Home Healthcare Nurse*. If you practice in a hospital, don't think an article in a home care journal doesn't apply to your practice. Narcophobia is a problem across the continuum of care.

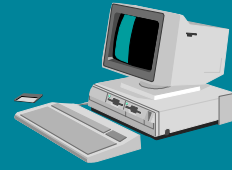
This article first provides a test to see if you are narcophobic, then reviews the literature about narcophobia and how it leads to under-treatment of pain. The authors describe why pain is not treated appropriately, including fear of regulatory oversight, fear of addiction and abuse, inadequate education, and attitudinal barriers.

Part two, in the next issue of the journal, will explore ways nurses can intervene when narcophobia presents a barrier to effective pain management and quality care.

This excellent article dispels a number of myths about the drugs that can manage patients' pain most effectively. You might want to make it required reading in your ongoing pain education plans — for nurses AND physicians.

Source: Acello B, Bedard M, Rickels C, Dack CE: Narcophobia. Part 1: Defining the problem. *Home Healthcare Nurse* 2001;19(2):75-82.

On the World Wide Web...



<http://www.missoulademonstration.org>

This web site is the home of the group in Missoula County, MT that conducted the pain research described in the AJN article. Their pain project was part of a comprehensive effort to study and improve the care of dying patients and their families. At this site, you can see their pain scales and read more about their pain research under the menu item "research."

<http://www.jcaho.org>

If you haven't visited JCAHO's site recently, take another look. It is very user-friendly, with a wealth of information about standards and other JCAHO information easily reached from this home page. The site provides a thoughtful collection of links to related healthcare organizations, nicely categorized for easy access. From this home page, you can click on a link that will allow you to subscribe to free e-newsletters and periodic updates from JCAHO in various areas of interest. You can also order JCAHO publications.

<http://www.pain.com>

Owned by the Danemiller Memorial Educational Foundation, this site calls itself "A world of information on pain," and it's hard to argue with that. This is a great place to start educating yourself about the world of pain management — from cancer pain to interventional pain management, migraine/headache pain, regional anesthesia, and perioperative pain. The site provides a number of online resources, including free online continuing education courses and carefully selected links related to other pain management sites.

References: Is Your JCAHO Visit Sounding Painful?

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5. Klosterhalfen B, Klinge U, Hermanns B, Schumpelick V: Pathology of traditional surgical mesh for hernia repair after long-term implantation in humans. *Der Chirurg* 2000;71(1):43-51.
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Check Your Knowledge...

A This patient has a tension pneumothorax on the right side. Immediate treatment is decompression with a large needle in the second intercostal space in the mid-clavicular line (first procedure) followed by chest tube insertion (second procedure).

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