

Pain control has no borders: A case study

By Mona Rechner

Abstract

This case study is presented to demonstrate how a clinical nurse specialist's consultation for pain took an unusual turn. The assessments and interventions used to achieve pain control for a woman with cancer are described, as well as how the success of the pain regimen resulted in an interesting outcome. An international collaborative effort was necessary in order to meet the patient's ultimate goal of returning home.

An important part of the oncology care provided in an outpatient setting is the management of pain. The causes of pain vary and may include the disease process itself and/or side effects from various treatment modalities. Management of this symptom is critical. A routine consultation for a clinical nurse specialist, with an unusual outcome, will be described in the following case study to illustrate how the pain was managed, how international orchestration of pain management was achieved and how the caring aspect of nursing was an integral component to quality outcomes.

Initial assessment

Mary* (** the names have been changed*) was a 56-year-old woman with colon cancer. Mary lived alone in an apartment and had help from her sister who had come to Canada from England on a temporary basis. Her sister, Beth*, requested my involvement to assist them to achieve comfort and quality of life in the time remaining to Mary.

Mary was in considerable pain when I first saw her. The pain was located in her abdomen and radiated to her back. She was unable even to lie comfortably and sleep was impossible. As we talked, the pain experience was so overwhelming that both Mary and her sister were in tears. They could not imagine that Mary would have to live in what they perceived as continual agony until she died.

Treatments for the disease and pain had included chemotherapy, radiation and oral analgesics including opioids. Some benefit had been realized from these treatments, but no further chemotherapy or radiotherapy was possible. As a result, the future plan of action was focused on pain relief with opioids.

The analgesic regimen Mary was on included a variety of



Mona Rechner

drugs: Meperidine, sustained and immediate release morphine, and acetaminophen with codeine. Side effects such as severe nausea and vomiting and sedation were experienced while on morphine, especially with the sustained release type. Previous experience with injectable morphine post-operatively had been uneventful. These pain relief medications were taken in varying combinations and doses throughout the day. Despite these initiatives, however, little pain relief was achieved.

Mary and her sister were able to give a detailed accounting of all the drugs, doses and administration times for a period of several days preceding our consultation. Thus, it was relatively straightforward to convert these varied drug amounts to an equianalgesic dose of morphine that was required in a 24-hour period. The intent of converting to morphine was to establish how much of one standard drug would be required to manage the pain (Hill, 1994). Then, a simple regimen of one drug, morphine, given on a regular schedule every four hours, with a proportionate small amount of this same drug for breakthrough pain, could be determined. The use of one drug rather than an assortment decreased the likelihood of inadequate doses, potential side effects and confusion for Mary and Beth as to which drug to take and when. Titration to increase or decrease the dose of morphine would be based on a daily assessment of the amount of pain control and/or side effects.

The side effects Mary experienced from morphine may have been due to the varying doses and formulations she had taken or disease progression rather than an actual sensitivity to the drug (Ellison, 1994). The long-acting morphine she took was prescribed on a trip to England before she had any experience with low doses of short-acting morphine. The nausea may have been caused by too high a dose of morphine for her level of pain at that time or because of the sustained effect of the drug. These were factors to consider when formulating a new pain regimen. A pain regimen with one strong opioid would simplify matters. Side effects could be possibly decreased and more easily managed with regular antiemetics (Agency for Health Care Policy and Research, 1994). Two choices that were readily apparent were to give short-acting morphine or hydromorphone on a regular four-hourly schedule with breakthrough doses. Regular antiemetic coverage would be provided for the first three to five days regardless of the opioid chosen. Either of these regimens would allow careful titration to comfort and hopefully minimize side effects such as nausea and sedation. The decision was made to select the drug hydromorphone because of Mary's emotional and physical distress with morphine. Her strong belief that morphine provoked nausea was powerful enough to indeed produce physical symptoms. Nausea and vomiting could be eliminated by simply changing from morphine to a similar opioid, hydromorphone, because of the effect of "incomplete cross tolerance" (Ellison, 1994).

CONTRÔLE DE LA DOULEUR SANS FRONTIÈRE : UNE ÉTUDE DE CAS

ABRÉGÉ

Cette étude de cas illustre comment une infirmière clinicienne spécialisée a fait une consultation sur la douleur et les situations plutôt inhabituelles que cela a entraînées. L'article décrit les évaluations et les interventions faites pour contrôler la douleur chez une femme atteinte du cancer ainsi que le dénouement intéressant qui a suivi la réussite du programme de lutte contre la douleur. Il n'a pas fallu moins d'un effort de collaboration internationale pour réaliser l'objectif ultime de la patiente qui était de retourner chez elle.

Mona Rechner, RN, BSN, MSN, is clinical nurse specialist, oncology, at Lions Gate Hospital, North Vancouver, B.C.

That is, even though both of these opioids have similar effects there is enough of a difference in the medications that a change from one to the other may not produce the same negative side effects. Also, a drug that is new to the patient may decrease the psychological effects from prior negative experiences with morphine.

Early days

The first few days were a difficult time of adjustment for Mary as her anxiety level was very high. There were frequent phone calls throughout the day from Beth for reassurance that she was doing everything correctly. A diary and flow sheet were used to record the pain intensity level, when regular and breakthrough doses were given, and any side effects that were experienced. Their accurate record keeping was essential to determine level of pain, amount of drug required and side effects experienced in order to titrate doses up or down (Librach, 1991). Beth brought these sheets into the clinic every few days and we reviewed them together.

The regular dose of hydromorphone was increased after the second day because of the large number of breakthrough doses taken. Mary required breakthrough doses at least once every four-hour period between regular doses to control her pain. The total amount of hydromorphone taken in a 24-hour period was divided into six equal doses to be given every four hours. The breakthrough dose was re-calculated accordingly to be one-quarter of the new four-hourly dose to be given as a one-hourly prn dose (American Pain Society, 1992). Over the course of the next week a pattern emerged that indicated when extra doses were needed. The pain regimen was adjusted to have Mary select six or eight milligrams of hydromorphone according to her pain levels at each four-hour regular dose. When her pain level was higher, the higher dosage of eight milligrams was to be taken, and if the pain level was lower, the lower dosage was taken. She was still able to take breakthrough doses of two milligrams every hour if she required to further relieve her pain. As Mary and her sister were confident of their ability to monitor pain and take the effective doses of hydromorphone, there was no limit to the number of breakthrough doses she could take. Nausea was well-controlled by a regimen of an antiemetic, prochlorperazine, taken regularly every six hours. This regimen was continued beyond the first few days at the patient's request. Mary would not risk feeling nauseated again. With these routines, Mary's pain was under good control in about two weeks and she was able to sleep throughout the night, go for short walks in the day and receive visitors again. Understandably, both women were overjoyed at the quality of life that was achieved.

Unexpected developments

As time went on, the pain management regimen successfully continued and Mary began feeling that she was living rather than dying. However, she realized the seriousness of her disease and made the decision to return to England to live there until she died. She would be able to live in her sister's house and be among friends and family. Plans were soon in the making to sell possessions, close up her life in Canada and make the move back to England.

References

- American Pain Society. (1992). **Principles of analgesic use in the treatment of acute pain and cancer pain**. Third edition. Skokie, IL: American Pain Society.
- Ellison, N.M. (1994). Opioid analgesics for cancer pain: Toxicities and their treatments. In R.B. Patt (Ed.) **Cancer pain**. (pp.185-194). Philadelphia: J.B. Lippincott.
- Hill, C.S. (1994). Oral opioid analgesics. In R.B. Patt (Ed.) **Cancer pain**. (pp.129-142). Philadelphia: J.B. Lippincott.


A necessary part of the moving plans included the communication and coordination between Canada and England that was required to enable Mary to continue on with her pain program. However, a surprising complication arose because hydromorphone is a controlled substance and not readily available in Great Britain. The success of Mary's pain management program was now in jeopardy. Alternative solutions were possible, but time limitations and the ultimate goals of comfort and quality of life were overriding factors in choosing to stay with hydromorphone. After the joy of success in being pain-free, it seemed reprehensible to subject Mary to new and possibly ineffective pain regimens. Thus began the process that would enable Mary to continue on hydromorphone.

One phone call to the area representative for Knoll Pharma Inc., Canada (which makes hydromorphone) connected me to the medical information specialist in Toronto. She was immediately interested in providing the necessary support from her company to help me solve an unusual clinical problem. We agreed upon the goal of getting Mary home to England on hydromorphone in the most straightforward manner without causing her undue stress and worry. Numerous phone calls, faxes and letters around Canada and to Great Britain were necessary to achieve our goal. Through the tireless efforts of everyone involved, the medical, legal and customs requirements were met. A licence was issued by the Home Branch Drug Office in London, England that allowed Mary to enter England with a three-month supply of hydromorphone. Travel arrangements were confirmed with customs in Manchester and Mary carried a copy of the licence with her.

Endings

Mary's family was very much a part of her homecoming. Her brother came to Vancouver to help with last-minute details and her sister was waiting for her in England. Mary had copies of all the pertinent letters, documents and the licence the afternoon before her departure. Happily, her trip was smooth and uneventful.

Once home, Mary was again part of a familiar community and her sister's home. She was attending church and getting out, as her pain was still well-controlled. After several weeks, Mary was not feeling well and went to see her doctor. A low hemoglobin was suspected and she entered hospital for a transfusion. Surprisingly, within a few hours of admission, Mary quietly and peacefully died.

It is with a great sense of pride that I relate this story. The challenge of controlling pain can be attained through research-based, consistent and skilled practice. However, the art of nursing in working with people to help them meet their dreams and goals is also a vital and essential element of successful pain management. 

Acknowledgements

I would like to thank Christine Meyers, MSc, medical information specialist, Knoll Pharma Inc., for her interest and hard work in helping make the impossible a reality.

- Jacox, A., Carr, D.B., Payne, R., et al. (1994). **Management of cancer pain. Clinical practice guideline. No. 9**. AHCPR Publication No. 94-0592. Rockville, MD: U.S. Agency for Health Care Policy and Research. Department of Health and Human Services, Public Health Service.
- Librach, L. (1991). **The Pain Manual**. Toronto: Pegasus Health Care International.