Management of Pain in Special Populations of Cancer Patients

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Children, the elderly, AIDS patients, and former narcotic drug abusers pose special problems in pain management that may lead to undermedication even more frequently than occurs in the general population of cancer patients with pain. A multidisciplinary panel of six pain experts with clinical experience in caring for these special groups met in Santa Fe, New Mexico, to discuss assessment methods and pharmacologic approaches to the treatment of pain in these patients. A summary of the roundtable discussion follows.

C. Stratton Hill, MD: The literature continues to contain reports indicating that pain from advanced cancer is undermedicated. There also is ample evidence that, in some cases, pain may be difficult to manage. This roundtable discussion will explore some of the barriers to effective pain management and will outline practical approaches to difficult management issues that arise in special populations of cancer patients, such as children, the elderly, AIDS patients, and former narcotic drug abusers. Some of the barriers to pain management are intrinsic to clinician-patient relationships, and others are extrinsic. In addition, there are many societal and cultural barriers to the adequate and appropriate use of opioids. These barriers are demonstrated by the fact that pain management does not become an issue until the intensity and diffuseness of pain require the use of systemic opioids. Alternatively, nonopioid methods of pain relief may be effective for a while but may be insufficient to manage severe pain.

In terms of cultural and societal barriers to adequate and appropriate use of opioids, much prejudice and misinformation exist among health-care professionals, patients, pharmacists, and friends and relatives of patients. Much of this bias comes from confusion about the legitimate and illegitimate uses of opioids. Unfortunately, illegitimate images of opioid drugs often dominate our thinking. Physicians, who ultimately make prescribing decisions, often focus on customary and societally accepted uses of these drugs, rather than on their pharmacodynamic and pharmacokinetic properties. Some physicians are reluctant to prescribe opioid drugs for adequate periods of time because they generally prescribe these agents for the treatment of acute—not chronic—pain. They fail to recognize that, in instances of acute pain, opioid use is usually self-limited, whereas in chronic pain, it is necessary to use opioid drugs over a longer time period.

In addition, there is some reluctance on the part of clinicians to use stronger opioids, and the practice of polypharmacy to avoid their use is common. The final barrier to adequate use of opioid drugs is fear of regulatory agencies. Drugs that are used for the treatment of pain are also drugs of abuse and are classified as controlled substances. Often, regulatory issues are so restrictive that clinicians may be reluctant to prescribe these drugs for legitimate medical purposes. These issues should be kept in mind during our discussion of considerations for pain relief in special populations of cancer patients. Children will be the first such population to be discussed.

Pediatric Patients

Ada G. Rogers, RN: For many years, conventional thinking held that children did not feel any pain because their nervous systems were not as developed as those of adults. This has been shown to be untrue, however.
Another major problem in pediatrics is the assessment of pain. In a younger child, pediatric nurses and physicians often rely on behavior as a means of assessing pain. Unfortunately, many clinicians assume that if children are engaged in “normal activities,” such as watching television, they are not in pain. In one study, however, I found that when asked about their pain, 50% of hospitalized children who were watching television, listening to music, or playing reported feeling severe pain. Thus, many children are undermedicated because behavior is used exclusively as the pain assessment tool.

For children over 3 years old, several more objective assessment tools are available (Figure 1). In 1980, I developed a tool called “happy/sad faces,” which consists of a series of five faces with different expressions. It has proved to be useful in diagnosing pain in children from 2½ years old to approximately 8 years old. In children over age 8, one can use verbal rating scales (which ask the child to rate pain as slight, moderate, or severe) or visual analog scales. Children respond well to these assessment instruments.

With regard to selecting an analgesic for children, one problem is that very few good studies have been conducted in this population. The lack of clinical data is due to our reluctance to treat children with experimental drugs, as well to parental objections to the use of a placebo. Thus, we do not have a good understanding of what pain medications can and cannot do in children. Our current knowledge is based on clinical experience rather than research. It is only recently that some studies have been conducted in children, primarily using acetaminophen and ibuprofen.

Opioid analgesics are very well tolerated by children with cancer pain. The two most common concerns relate to the potential of these drugs to produce respiratory depression and addiction. Both of these concerns are unfounded, as no data show that either of these side effects occurs in children with cancer pain.

Children can safely take morphine, hydromorphone, levorphanol (Levo-Dromoran), or methadone, among other opioids. However, I do not use meperidine chronically in pediatric patients. In children, as in adults, the accumulation of the toxic meperidine metabolite normeperidine can cause central nervous system excitation, ranging from irritability to grand mal seizures. Also, since children tend to develop itching more often than do adults, I generally use drugs that do not release histamine, such as oxy-codone, oxymorphone (Numorphan), and fentanyl (Tables 1 and 2).

Ronald Kanner, MD: Are the pediatric doses of opioids based on weight?

Ms. Rogers: Body weight is appropriate as a starting point, but once a child has been medicated, the clinician must observe the patient’s response and titrate the dose accordingly. If a child received analgesics in the past, previous dosing should be used as a starting point.

Dr. R. F. Kaiko at Memorial Sloan-Kettering Cancer Center studied almost 1,000 adult patients taking 8 or 16 mg of morphine. He found that age was a better parameter than weight for determining the starting dose. This guideline also applies to children. I have had young children taking very high doses of opioid analgesics who had no problems with breathing or sedation.

Christine Miaskowski, PhD, RN: What about the role of the parent or caregiver in managing pain? Are parents facilitory or obstructive? What are their fears?

Ms. Rogers: Concerns vary with from parent to parent. One of the biggest worries is drug abuse. Parents fear that the child—especially if an adolescent—will become addicted to pain medication. Other parental fears stem from misinformation about what pain medications do in the body. Parents may think that these drugs will interfere with chemotherapy or deteriorate their child’s liver and lungs. Some nurses may perpetuate these misconceptions. For example, one nurse told a child that levorphanol would eat away his lungs if he kept taking it.

As to whether parents are facilitory or obstructive, I have found that once you win the confidence of a family member or caregiver, he or she may provide important information by monitoring and assessing the child’s pain.

Dr. Hill: Can children be trusted to administer intravenous patient-controlled analgesia (PCA)?

Ms. Rogers: Studies have shown that children 7 years and older can be taught to use a PCA system. However, PCA is not appropriate for every child. For example, a 14-year-old boy told me that he did not like pushing the button. He preferred to have his mother give him the injection of rescue medication. The main point that I wish to make about PCA is that it should not take the place of good pain assessment and management.

Elderly Patients

Dr. Hill: Dr. Miaskowski will now discuss another special population—the elderly.

Dr. Miaskowski: I would like to preface my remarks by saying that very little research has been
done in the elderly population. Much of the information in the literature comes from either anecdotal reports or is based on clinical experience. However, as the geriatric population grows, we will undoubtedly see more research focused on the management of geriatric pain.

In elderly patients, the need for assessment and reassessment is critical. Besides managing cancer-related pain, the clinician needs to consider other preexisting or concomitant, potentially painful comorbid conditions that are common in this population. These include arthritis, osteoporosis, fractures as a result of falls, previous injuries, and the whole gamut of musculoskeletal disorders.

Some data in the literature suggest that elderly patients traditionally underreport their pain. Many elderly patients do not report pain because they assume that it is a normal part of aging. Others are trying to be “good patients,” and they believe that good patients do not complain.

Memory disturbances and/or changes in mental status or cognition may also complicate the assessment of pain in the elderly. One way to deal with this problem is to rely on a family member or caregiver to provide a recent pain history. Also, patients with a cognitive alteration may require someone to help them administer their around-the-clock dosing and/or breakthrough medication. These are some practical issues to consider when managing pain in the elderly patient.

Regarding doses of pain medication in the elderly, the general rule is to “start low and go slow.” The literature suggests beginning with one-half or one-third of the normal adult dose. It is important to titrate drug doses to achieve the maximal analgesic effect without side effects and to monitor both renal and hepatic function. These are critical parameters in the elderly population.

From a management perspective, several issues may affect therapeutic outcome in the elderly. The first is poor vision. Since elderly patients may be unable to read a prescription label, it is important to request large-print instructions.

Second, elderly patients, especially those who have arthritis in their hands, may have difficulty opening childproof caps. When prescribing medications for this population, physicians need to ask pharmacists not to use childproof caps.

Cost is another issue. Most elderly patients in the United States are on a fixed income. Oral drugs tend to be the least expensive, and many times are the most efficacious.

Dr. Kanner: I do something else for my elderly patients, especially those with poor vision who need assistance in keeping drug dosage straight. Either on the prescription bottle or a separate piece of paper, I write, in large, bold print, the name of the drug and, in parentheses, the reason why the patient is taking it. For example, I might write “oxycodone (pain medication),” and include the times at which it should be taken. Rather than writing “three times a day,” I make a graph for the patient and say, “Here’s what you take during these particular times of the day.” The information is given to the patient, as well as the patient’s significant other or caregiver. I also keep a copy of the graph on the front of the patient’s chart, so that if he or she calls with questions about the medication, someone in the office can be of assistance.

Regarding side effects in the elderly, the gastrointestinal and renal side effects caused by nonsteroidal anti-inflammatory agents are more common in the elderly than in the young.

Dr. Hill: A major consideration in the assessment of elderly patients is failing memory. You ask elderly patients how their pain is today compared to yesterday, but some cannot remember what happened 10 minutes ago, much less what went on yesterday. This makes it very difficult to know how well you are managing the pain. Often, you simply must accept the patient’s report of pain at each point in time.

Dr. Miaskowski: In these cases, it is important to consider the reports of a family member, if there is someone at home with the patient.

The other issue that we did not discuss is the choice of opioid analgesics. In the elderly, it is more efficacious to use analgesics with a shorter duration of action, such as hydromorphone.

Ms. Rogers: It can be helpful to use a simple assessment tool, such as happy/sad faces, in the elderly. Clinicians can use it when they see a patient and have the family use it at home to record the patient’s pain. This tool allows them to provide good information at the next visit.

AIDS Patients

Dr. Hill: What about special considerations for managing pain in AIDS patients?

Judith Paice, PhD, RN: Several recent studies have indicated that the prevalence of pain in an AIDS population is quite high, possibly more than 70%. Despite this, the current status of pain relief in AIDS patients is at about the same point that we were in oncology approximately 20 years ago. AIDS patients’ primary-care physicians usually are not oncologists; rather, they are clinicians who
are not accustomed to giving opioids. One needs to be cognizant that pain syndromes in AIDS patients are different from syndromes typically seen in a cancer pain population. Headache is extraordinarily common, as are chest pain (due, in part, to *Pneumocystis carinii* pneumonia) and abdominal pain of unknown origin. Often, extensive examination and diagnostic studies do not reveal the etiology. Most troubling is the peripheral neuropathy that is usually present in a bilateral “stocking/glove” distribution, affecting feet first and then hands. This is extraordinarily debilitating and causes patients to be much less mobile. The treatment of neuropathies in the AIDS population is very similar to that in a cancer pain or diabetic neuropathy population.

Assessment of pain in the AIDS population is very critical. Multiple pain sites are common, as is true in the cancer pain population. Pain assessment in patients with AIDS is complicated by such factors as loss of eyesight from cytomegalovirus infection, debility, and dementia. To assess pain, it may be appropriate to use pediatric scales or behavioral indications, such as grimaces and body posture. Pain in the AIDS population is treated in the same manner as in patients with cancer pain. Specifically, one follows the World Health Organization (WHO) model, which outlines the use of nonopioids, opioids, and adjuvant drugs. The clinician must be extraordinarily careful to avoid drug interactions in AIDS patients because most of these individuals are taking a large number of medicines.

In addition, treatment may be complicated by the patient’s past history, in particular, substance abuse. Obviously, not all of these patients have a history of substance abuse. However, during the initial history, it is essential to ask the patient about past use of drugs.

**Patients With a History of Substance Abuse**

**Ms. Rogers:** Within the cancer population, there are also patients who have been former drug abusers. Unfortunately, many people who have abused drugs in the past are not believed when they complain about pain. It is perceived that they are asking for more medication because of their drug addiction. For example, a heroin user who had cancer of the maxillary sinus that had been treated with radiation therapy complained of pain in her leg. She was taking methadone, 10 mg orally every 6 hours, and was doing very well except for the leg pain. The head and neck surgeon assumed that the complaint of leg pain was a ploy to get more medication, but, in fact, an x-ray of the leg determined that she had a metastasis.

**Dr. Kanner:** A history of drug abuse does not confer immunity from cancer or the pain of cancer. On the other hand, there are no foolproof methods for treating cancer-related pain in patients with a history of drug abuse. Recognize that this is a very difficult population. I divide these patients into three groups: patients with a remote history of abuse (many years ago), patients with a recent history of abuse, and patients who are actively abusing.

I treat patients with a remote history of abuse in the same way as I treat patients who have no history of abuse, recognizing that the former may develop tolerance more rapidly than the latter. It has been demonstrated, in the literature on drug abuse, that patients who chronically used opioid drugs for recreational purposes in the past develop tolerance more rapidly than do patients who are opioid-naive.

In patients with a recent history of abuse, I try to establish the amount of their recent drug intake. I then use that as a baseline, and dose above it for pain. With patients who are active drug abusers, I establish a contract, which states that I will give the patient an amount of drug that usually works for patients with his or her type of pain. I prescribe enough medication for 2 weeks, under the condition that the prescription will not be replaced for any reason. The use of this drug requires a degree of responsibility on both my part and the part of the patient. I am willing to treat the pain. The patient must take on the responsibility to manage the drugs appropriately. I find that this is the best approach.

**Dr. Hill:** If I think that a patient is abusing drugs, I explain to that patient that I can no longer use his or complaint of pain as a valid guide for dosing. Rather, we have to come to a contracted decision, and we use that particular dose. I keep reassuring the patient that I am interested in relieving his or her pain, but remind him or her that these are controlled substances, and regulatory agencies demand that we be good stewards over the use of these drugs. Therefore, the patient must be careful, be aware of the location of the drugs, and be cognizant that they are his or her responsibility.

**Dr. Paice:** What advice would you give to an oncologist or primary-care physician who is caring for a patient who is not abusing the drug him- or herself, but who has a family member who is? Do you go
through social services to get the drug abuser removed from the home? Is there any approach that has worked for you?

**Dr. Kanner:** I usually call a meeting and say to the abusing family member, “What you’re doing is impairing the pain control of this patient. So, if you really care about your loved one, do not let him or her suffer because you are taking the pain medicine.”

**Dr. Hill:** Another thing you can do is keep a very close watch on these patients. At M. D. Anderson Cancer Center, we make them come in every day or every other day to get their pain medication, as is done in methadone maintenance programs. Thus, if patients or family members are selling the drug, this prevents them from having enough “product” to sell.

### Pain Management in the Managed-Care Era

**Dr. Hill:** Looking into the future, many cancer pain patients will be part of managed-health care programs, such as health maintenance organizations (HMOs) and preferred provider organizations (PPOs). It is important to consider what impact this type of practice may have on the management of pain patients. What will be the role of physicians and other health-care professionals in shaping these health-care plans so that our patients continue to obtain good pain relief?

**Laura Giffin Audell, MD:** The foremost responsibility will rest on the primary-care physician, who will need to become an expert in how to manage pain. Hopefully, there will be a network within each system that enables primary caregivers to consult with pain experts for advice on how to handle difficult situations. Due to changes mandated by managed care, in the future patients may no longer enjoy the freedom to choose who is providing their pain care. Appropriate use of medications will remain the mainstay of oncologic pain management and is by far the most cost-effective approach. Because of the expense involved, some managed health-care programs may be unwilling to pay for the more high-technology treatments for pain, such as infusion pumps and intraspinal delivery systems.

**Dr. Hill:** How can pain experts position themselves to influence the availability of opioid drugs to cancer patients? We are seeing more hospitals that have formularies for their indigent patients and their paying patients. Who is going to choose which drugs will be available? How can pain experts, people who *should* have influence over these decisions, ensure that they *do* have influence?

**Dr. Audell:** Communication with administrators of managed-care policies is needed to help them outline their patient populations and needs. Pain experts also need to help administrators make the right choices about which pain medications will be available to treat cancer patients. Patients should be educated so that they lobby for appropriate pain medications and treatments.

**Dr. Kanner:** It seems fairly clear that the move toward less expensive care is here to stay. We already have generic substitution, whereby hospitals substitute a generic drug for a brand-name drug. The latest wave in this trend, called “therapeutic equivalent substitution,” allows a hospital to substitute an entirely different drug than the one prescribed, provided that it is “therapeutically equivalent.”

**Dr. Hill:** When you refer to “a hospital” making these types of substitutions, who, specifically, are you talking about?

**Dr. Kanner:** The hospital’s pharmacy and therapeutics committee will make these decisions, using the following rationale: “Here is a given list of drugs for symptom X. Since any of these drugs can be used for that symptom, we will pick the least expensive drug on that list. Whenever a physician prescribes drug A for symptom X, we are going to substitute drug B, because it is therapeutically equivalent and less expensive.”

**Dr. Hill:** How do we position ourselves to be influential regarding proper pain management techniques?

**Dr. Miaskowski:** I think we have to look at current strategies and decide where we can contribute to better pain management. Since primary-care providers are concerned about both the prevention and treatment of pain, pain assessment will probably be incorporated into primary care. We will have to expand our thinking about health-care delivery to encompass not only acute-care hospitals but also nursing homes and ambulatory-care facilities. We will have to build alliances with all providers. The consumer is also going to be a critical part of the picture; we will be seeing more consumers on boards of hospital corporations, governing what the pain management package will include. Some hospitals have already conducted patient satisfaction surveys on the quality of pain management that postoperative pain patients received. This information is used in their advertising program. One of the things that cancer patients fear most is pain associated with their disease. Thus, we could suggest to the chief executive officer of hospitals that adequate pain management will enhance
patient comfort, satisfaction, and quality of life. This can be a tremendous marketing tool, and in these hospitals, patients—or customers—who are satisfied are going to “buy into” that health-care plan.  

**Dr. Hill:** We have to position ourselves, on the federal, state, or local level, to be the ones who influence which analgesics should be available.  

**Dr. Paice:** I believe that we also need to accept the fact that health care will be rationed in some way. Maybe we won’t be able to give a certain patient a particular chemotherapeutic agent. Perhaps a bone marrow transplant may not be appropriate in every case. However, the *least* we can do is to provide good pain relief. That would be a very effective strategy.  

**Dr. Hill:** Quality-of-life issues are becoming very important, but not only to cancer patients. Because our population is aging, an increasing number of people will be in age groups that are more likely to have chronic, painful medical conditions, both malignant and nonmalignant.  

To sum up this roundtable discussion, we have outlined some difficult issues that may arise in the management of cancer patients with pain. However, it is encouraging to note that, for most cancer patients, pain can be controlled with the means that are available to each clinician.  

**References:**


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