Morphine prescription in end-of-life care and euthanasia: French home nurses' opinions

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ABSTRACT

Objective: This study aimed to investigate factors that might lead French homecare nurses to consider the prescription of high-dose morphine to terminally ill patients to be euthanasia.

Methods: The researchers conducted an anonymous telephone survey among a random sample of 602 French homecare nurses (response rate = 75 percent) in 2005.

Results: Overall, 27 percent of responding home nurses considered prescribing high-dose morphine to terminally ill patients to be euthanasia. Such an opinion was more frequently held by older nurses, those who had not followed terminally ill patients during the previous three years, and those with less knowledge about pain management involving opioid analgesics.

Conclusion: There is an urgent need to strengthen pain management education among French homecare nurses—especially regarding the use of morphine—in order to both improve their technical skills and correct some misconceptions about opioid analgesics.

Key words: morphine, euthanasia, end of life, France

INTRODUCTION

Pain management is a key issue in increasing the quality of life of dying patients, and it is one of the most important goals of palliative care. Opioids, especially morphine, remain the treatment of choice for relieving severe pain, and high-dose morphine could be required in end-of-life care. In France, despite the priority given by international guidelines and public health authorities to the improvement of pain management in end-of-life care, many physicians are still reluctant to prescribe morphine to terminal patients with severe pain, and a minority consider such prescription to amount to euthanasia.[1,2] Nurses are also involved in pain management, and they have a vital role in pain assessment and titration of opioid doses. A French law passed in 2002 states that nurses have to assess patients' pain and must also adapt their treatment if necessary. Surveys conducted in other countries suggest that negative attitudes toward morphine use in pain management are not uncommon among nurses and that they may contribute to undertreatment of pain.[3-6] French health authorities are currently encouraging the development of end-of-life home care. This form of care is common in many developed countries, where most people state a preference for dying at home.[7-9] As a consequence, over the next decade home nurses will be increasingly confronted with end-of-life situations that may require the use of high morphine doses to relieve patients' pain. Such use of morphine at home is considered safe and is not thought to adversely affect the patient's life expectancy.[10] This article aims to study French home nurses' propensity to consider high-dose morphine prescription in terminal care to be euthanasia, using data from a nationwide survey conducted in 2005 by France's Southeastern Health Regional Observatory and the Health and Medical Research National Institute.

METHODS

Sampling and data collection

Between May and September 2005, a computer-assisted telephone-interview survey was carried out among a random sample of French home nurses. Eligible subjects were nurses currently delivering home care who had at least one year of professional experience. In France, most nurses are females, but we assumed that gender may

shape beliefs, attitudes, and practices regarding end-of-life and palliative care. For this reason, we stratified the sample to ensure an adequate representation of males. First, we randomly selected 2,400 nurses from the complete file of French nurses kept by the private society CEGEDIM.™ From this sample, 233 males and 722 females were contacted to participate in the survey.

Questionnaire

The questionnaire was developed by the South Eastern France Palliative Care Group, which comprises doctors, nurses, and sociologists. It included five modules dealing with the following topics, respectively: 1) patient-nurse communication, 2) description of the last terminally ill patient the home nurse had followed up until death, 3) knowledge of pain management, 4) opinions and attitudes toward palliative care and euthanasia issues, and 5) the nurse's personal and professional background (including gender, age, religiosity, specialized training in palliative care and pain management, and number of dying patients followed during the previous three years). In the fourth module, respondents were asked whether or not prescribing high-dose morphine to a dying patient should be considered euthanasia, and responses were based on a 5-point Likert scale (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree).

Nurses' knowledge of pain management was assessed using 27 items picked up from several questionnaires developed by McCaffery and Ferrell.[11,12] These deal with common misconceptions about pain assessment and analgesics. Two separate scores have been computed: a score of general knowledge about pain management (with no item related to opioid analgesics; score ranging from 0 to 15) and a score of knowledge about pain management involving opioid analgesics (with specific items; score ranging from 0 to 12) (see Appendix for details of the items).

Statistical analyses

The 5-point scale used in the question about considering the prescription of high-dose morphine to an end-of-life patient to be euthanasia was collapsed into a binary outcome ("strongly agree" or "agree" versus "neither agree nor disagree," "disagree," and "strongly disagree"). First, we used Pearson's χ^2 test (with Yates' correction) to test the relationships between respondents' characteristics and this binary outcome (we used Yates' correction to prevent overestimation of statistical significance for small data).[13] Secondly, to investigate factors associated with opinions toward morphine use in end-of-life care while controlling for potential confounding factors, we computed a multivariate logistic model with a stepwise method (entry threshold p = 0.1).

RESULTS

Data collected

Among the 955 home care nurses contacted, 152 ultimately did not participate in the survey because of incorrect phone numbers or ineligibility (insufficient professional experience, not delivering home care, retired). Among the remaining 803 nurses, 602 agreed to participate (451 females and 151 males) and 201 (161 women and 40 men) refused to participate. The response rate was 74 percent among female nurses and 79 percent among male nurses. Nonrespondents were asked to fill in a brief refusal questionnaire. The nonrespondents were found to be slightly older than respondents, and they most frequently explained their refusal to be interviewed as the result of a lack of time.

Two-thirds of respondents (68 percent) were under 50 years of age, and 74 percent reported that they did not believe in the existence of a god who controls their destiny (Table 1). Overall, 57 percent of participating home nurses had completed a specialized training program in pain management during the previous five years, but only 26 percent did so for specialized training in palliative care. Only 3 percent had not followed any terminally ill patients during the previous three years.

Factors associated with opinions regarding morphine prescription

Roughly one-fourth of responding home nurses stated that prescribing high-dose morphine to terminally ill patients should be considered euthanasia. In bivariate analysis, gender, religiosity, specialized training in palliative care, and general knowledge about pain management were not significantly correlated with such an opinion. Nurses trained in pain management were less likely to consider high-dose morphine prescription to be euthanasia (23 percent versus 30 percent, p = 0.074), but this difference was no more significant in the multivariate analysis. In contrast, several results were statistically significant in both bivariate and multivariate analyses. Prescribing high-dose morphine to a terminally ill patient was more frequently considered to be euthanasia by older nurses (35 percent among those 50 and older, versus 24 percent among those 49 and under, p = 0.001; adjusted odds ratio = 1.7). This opinion was also more prevalent among nurses who had not followed any terminally ill patients during the previous three years (44 percent, versus 26 percent among those who had followed at least one patient). Finally, greater knowledge about pain management involving opioid analgesics was significantly associated with a lower propensity to label high-dose morphine prescription for terminally ill patients as euthanasia.

Table 1. Home nurses' personal and professional characteristics and opinions toward the prescription of high-dose morphine to terminally ill patients (n = 602; France, 2005)

Prescribing high-dose morphine to a terminally ill patient should be considered euthanasia.

	No (1) 442 (73 percent)	Yes (2) 160 (27 percent)	(2) vs. (1) bivariate p value	(2) vs. (1) adjusted OR [CI: 90 percent]
	n (row percent)			
Gender				
Male (ref.) (n = 151) (ref.)	106 (70)	45 (30)	0.353	–
Female (n = 451)	336 (74)	115 (26)		
Age				
≤ 49 years (n = 410) (ref.)	318 (76)	92 (24)	0.001	1
≥ 50 years (n = 192)	124 (65)	68 (35)		1.7 [1.2 – 2.6]
Do you believe in the existence of a god who controls your destiny?				
No (n = 443) (ref.)	323 (73)	120 (27)	0.713	–
Yes (n = 159)	119 (75)	40 (25)		
Specialized training in palliative care (during the last five years)				
No (n = 406) (ref.)	292 (72)	114 (28)	0.230	–
Yes (n = 196)	150 (77)	46 (23)		
Specialized training in pain management (during the last five years)				
No (n = 342) (ref.)	241 (70)	101 (30)	0.074	–
Yes (n = 260)	201 (77)	59 (23)		
Number of terminally ill patients followed during the last three years				
0 (n = 43) (ref.)	24 (56)	19 (44)	0.022	1
1 – 10 (n = 363)	274 (75)	89 (25)		0.4 [0.2 – 0.9]
> 10 (n = 196)	144 (73)	52 (27)		0.5 [0.3 – 1.0]
General knowledge about pain management				
Mean score [SD] (score range: 0 – 15)	8.3 [2.1]	8.0 [2.3]	0.188	–
Knowledge about pain management with opioid analgesics				
Mean score [SD] (score range: 0 – 12)	5.2 [1.9]	4.9 [1.6]	0.015	0.9 [0.8 – 1.0]

SD: standard deviation; p value: computed for Pearson's χ^2 with Yates' correction; OR: odds ratio; –: not selected by the stepwise procedure.

DISCUSSION

In the present study, 27 percent of responding home nurses (26 percent among females, 30 percent among males) considered prescribing high-dose morphine to terminally ill patients to amount to euthanasia. Such an opinion was more frequently held by older nurses, those who had not followed any terminally ill patients during the previous three years, and those with less knowledge about pain management involving opioid analgesics. Before discussing our results, however, we must acknowledge several limitations of the present study.

Answering questions on a sensitive topic such as euthanasia can be delicate when done over the phone. Moreover, a closed-ended questionnaire prevents respondents from qualifying or justifying their responses, and we investigated attitudes, not actual practice (legal constraints prevented us from asking any questions dealing with respondents' personal experience with euthanasia). For example, nurses may endorse positive attitudes toward morphine use but administer the lowest effective amount or encourage patients to take nonopioids rather than opioids for pain relief.[4] As our data were cross-sectional, we can not draw conclusions as to whether the relationship between age and opinion toward high-dose morphine prescription is due to either "age effect" (nurses' opinions change as they grow older) or "generation effect" (newer cohorts of nurses may have different opinions due to a shift in moral values or in nursing education). In either case, this effect is probably context dependent, as results opposite ours have been found in Korea.[6] However, both the Korean study and the present one found a relationship between practical experience caring for terminally ill patients and more positive attitudes toward morphine use (if one regards labeling high-dose morphine prescription to terminally ill patients as euthanasia as a "negative" attitude). A number of previous surveys dealing with nurses' knowledge and attitudes toward pain management have found serious knowledge deficits regarding opioid analgesics which could adversely affect the care of terminally ill patients with severe pain, especially because these deficits fuel irrational fears of creating opioid addiction.[14-17] Our results suggest that specific knowledge deficits about pain management utilizing opioid analgesics could also fuel another misconception that may be a cause for undertreatment of pain: considering the prescription of high-dose morphine to terminally ill patients to qualify as euthanasia. Finally, our results suggest an urgent need to strengthen pain management education among French home care nurses, especially regarding the use of morphine, in order to both improve their technical skills and correct some misconceptions about opioid analgesics. Indeed, previous studies have shown that training programs in palliative care and pain management can significantly improve nurses' knowledge and attitudes regarding this issue, for home care nurses as well as for hospital staff.[11,18]

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APPENDIX. QUESTIONS USED TO ASSESS NURSES' KNOWLEDGE OF PAIN MANAGEMENT[12,13] (CORRECT ANSWERS IN PARENTHESES)

Questions related to opioid analgesics

True or false

After the initial recommended dose of opioid/narcotic analgesic, subsequent doses are adjusted in accordance with the individual patient's response. (true)

Elderly patients can not tolerate strong medications such as opioids for pain. (false)

Opioid analgesics are best ordered on a PRN basis to encourage minimal dosing and reduce the risk of addiction. (false) (PRN: practicing registered nurse)

Patients with a history of substance abuse who require intravenous opioids should not be given patient-controlled analgesia. (false)

Beyond a certain dose of opioid (morphine, Dilaudid), increases in dose will not increase pain relief. (false)

Respiratory depression rarely occurs in patients who have been receiving opioids over several months. (true)

If opioids are used during the pain evaluation period, they will adversely affect your ability to correctly diagnose the cause of pain. (false)

Adjuvant analgesics such as tricyclic antidepressants and anticonvulsants should not be used in combination with opioid analgesics or NSAIDS. (false)

The usual duration of action of meperidine (Demerol) is four hours. (false)

Research shows that hydroxyzine (Vistaril) is a reliable potentiator of opioid analgesia. (false)

Multiple choice

What is the recommended route of administration of opioid analgesics for patients with prolonged cancer-related pain? intravenous, intramuscular, subcutaneous, oral, rectal (oral)

Which of the following analgesic medications is considered the drug of choice for the treatment of prolonged moderate to severe pain for cancer patients? Brompton's cocktail, codeine, morphine, meperidine, methadone (morphine)

Other questions about pain management

True or false

If the patient can be distracted from his pain, this usually means that he does not have as high an intensity of pain as he indicates. (false)

A patient may sleep in spite of severe pain. (true)

Because of an underdeveloped nervous system, children under the age of two have little sensitivity to painful stimuli and limited memory of painful experiences. (false)

Giving patients sterile-water injection (placebo) is a useful test to determine if the pain is real. (false)

Beyond a certain dose of nonopioid analgesics, increases in dose will not increase pain relief. (true)

Basically, pain is best managed with single analgesics rather than with a combination of drugs. (false)

Anticonvulsant drugs (e.g., carbamazepine) produce optimal pain relief after a single dose. (false)

Corticosteroids (e.g., dexamethasone) are a standard emergency treatment for suspected malignant spinal cord compression. (true)

Neuropathic pain may be particularly responsive to anticonvulsant drugs. (true)

Although benzodiazepines provide relief from painful muscle spasms, they are not effective analgesics. (true)

Lancinating pain may be particularly responsive to therapy with anticonvulsant drugs. (true)

Children can reliably report the intensity of their pain. (true)

Nondrug interventions (such as distraction and imagery) used alone can often relieve pain. (false)

Multiple choice

Why would a terminal cancer patient with chronic pain request increased doses of pain medication? The patient is experiencing increased pain, The patient is experiencing increased anxiety or depression, The patient is seeking more staff attention, The patient's requests are related to addiction (The patient is experiencing increased pain)

Who is the most accurate judge of the intensity of the cancer patient's pain? the treating physician, the patient's primary nurse, the patient, the pharmacist, the patient's spouse or family (the patient)