

EVALUATION OF CANCER PAIN MANAGEMENT AND DRUGS PRESCRIPTION ACCORDING TO WHO INSTRUCTIONS

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Received : 15/09/2022
Received in revised form : 10/11/2022
Accepted : 27/11/2022

Keywords:
Pain management, Cancer-Associated Pain, Opioid Analgesic, WHO.

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DOI: 10.47009/jamp.2023.5.1.18

Source of Support: Nil,
Conflict of Interest: None declared

Int J Acad Med Pharm
2023; 5 (1); 78-82



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Abstract

Background: Pain management has a very important role in cancer patient's life quality. Because of such a great role, we surveyed the quality of cancer pain management in Guilan province in a cross-sectional analytical study. **Materials and Methods:** After obtaining permission from the ethics committee in university research, the required information was collected and investigated by available sampling methods from respected specialists in the fields of oncology, anaesthesia, and surgery of Guilan University of Medical Sciences. Finally, the recorded data were statistically analysed by SPSS software version 22.

Result: There was no significant relationship between gender and attitude of Rasht specialists ($P=0.238$). There was no significant relationship between the background and attitude of Rasht experts ($P=0.637$). There was a significant relationship between the type of specialization and the attitude of Rasht specialists ($P=0.0001$). There was a significant relationship between the expertise and the attitude of Rasht experts ($P=0.0001$).

Conclusion: The attitude of experts towards the management of cancer pain and drug administration according to the World Health Organization ladder and the Ministry of Health and Medical Education has been moderate and there is a significant relationship between the attitude of Rasht experts and the type and degree of a specialist. Training workshops to increase awareness of cancer pain management and prescribing drugs, in addition to educating residents, will improve management of cancer pain and drugs prescription which in turn increases satisfaction of cancer patients.

INTRODUCTION

More than two-thirds of patients with metastatic cancer acquaintance with pain and a larger part of patients with cancer continue to have moderate to severe pain which, regrettably, remains undertreated.^[1] Cancer pain is a complex issue that unfortunately affects most cancer patients.^[2] Pain has been reported when taking anticancer drugs, after the treatment phase, as well as in the metastatic and final stages.^[3] Pain is one of the main causes of medical advice worldwide. Numerous organizations and

scientific associations have tried to find a solution to this problem and facilitate the treatment of pain. It is always best to prevent pain so that no treatment is needed.

In 1986, the World Health Organization (WHO) introduced the analgesic ladder as a framework for physicians to develop treatment plans for cancer pain.^[4] Preliminary studies on the effectiveness of this ladder showed that the WHO method recommended cheap treatment and adequate relief for 70% to 90% of cancer patients with chronic pain.

This percentage has been questioned today and is now thought to be in the range of 70% to 80%.^[4,5] Pain is an indicator of the severity of the patient's condition and a diagnostic indicator. Chronic pain is no longer just a symptom but a disease.^[6] Pain control is an important part of caring for cancer patients. Although pain control will be up to 90% if used properly, the prevalence of pain in patients with advanced cancer has been reported in up to 64% of cases and 40% of patients have reported inadequate pain control.^[7] Related factors, such as the skill and knowledge of the physician, the healthcare system, and the patient, have been reported. In particular, the lack of skills in patient pain assessment and management has been identified as an important barrier to pain control and treatment. Studies show a lack of awareness among experts.^[8] One study found that oncologists have general knowledge about pain management in cancer patients and do not have sufficient specialized information about prescribing drugs or alternative treatments to control pain.^[9] Defects in information are especially evident when trying to calculate the right dose of a drug to manage pain.^[10] Nurses' awareness of narcotics as pain control was so imperfect that it was due to their exaggerated fears about the addictive nature of narcotics or their potential for respiratory depression. As a result, the response of doctors and nurses to pain was inadequate and inappropriate.^[11] In Korea, studies also show that many doctors do not know anything about matched narcotics, drug doses, adjunctive painkillers, and the fact that narcotics have no limit on use.^[12] Another study found that 70% of patients with advanced cancer experience pain and that pain management is inadequate in half of them.^[13] Another study in China listed the main barriers that prevent patients from fully managing their pain as follows: Patients' fear of drug side effects (58%), Patients' fear of addiction (53%), Patients' reluctance to report pain (43%), Doctors' unwillingness to prescribe drugs (29%) and assessment of physician incorrect pain (27%).^[14] Considering the high statistics of mismanagement of pain treatment of cancer patients in other countries and considering that no similar study has been done in this province so far, in this study we decided to see how pain management is performed by specialists in the field of Guilan University. How much it complies with the World Health Organization standard. Perhaps the implementation of this research is a step towards obtaining information about the knowledge of physicians in Iran and their shortcomings and defects so that in the next steps to correct them and improve the control of cancer patients' pain, appropriate operations can be performed and thus we can improve patients' quality of life.

MATERIALS AND METHODS

In a cross-sectional analytical study, after obtaining permission from the Ethics Committee of Guilan

University of Medical Sciences (IR.GUMS.REC.1398.338), information for specialists in oncology, anesthesia and surgery of Guilan University of Medical Sciences includes gender, type of specialization, degree of specialization, work experience, and score experts' views on how to manage cancer pain were collected based on a questionnaire. To determine the validity of the questionnaire using the content validity method, the questionnaire was provided to 11 specialists in oncology, anesthesia, and surgery.

The Content Validity Ratio CVR of each question was obtained based on the answers and the questions that had coefficients below 0.7 were deleted. Since the CVR of the questions is 0.88% in total, 14 questions remained in the questionnaire. In the study of Content Validity Index CVI index in terms of relevance, clarity, and acceptability of all questions had a CVI value above 0.8 and the CVI index was 0.931%. Then, using a pilot study, a questionnaire completed by 72 people, specialists in oncology, anesthesia, and surgery validity and reliability is obtained.

Reliability and internal consistency of the total score and the different scales and subscales were evaluated by Cronbach's alpha and item-total correlation.^[15] They must choose one of the options "Strongly Agree", "Agree", "Disagree", and "Strongly Disagree". The participant who chooses the completely agreeing option gets 4 points, chooses the agreeing option 3 points, chooses the non-commenting option 2 points, chooses the opposite option 1 point and the opposite option gets zero points. Hence the highest score for each question is 4 and the lowest score for each question is zero. The highest possible score for each person is 56 and the lowest score is zero. A score between zero and 28 (50% of points) indicates a weak attitude, a score between 28 and 39 (50 to 70% of points) shows a moderate attitude and a score between 39 and 56 (70% above points) shows a good attitude.

Data Analysis

After collecting the data, the information was entered into SPSS software version 22. Frequency tables and statistical graphs were used to describe the data, and to examine the relationship between the score of experts' attitudes on how to manage cancer pain and drug administration with gender, history, type of specialty, degree of specialization, specialist, Chi-square, Fisher and Kruskal-Wallis tests the level of significance criterion for all tests was 0.05.

RESULTS

Of the 72 people studied, 40 (55.6%) were male and 32 (44.4%) were female. 17 people (24%) wrote their work experience information, of which 9 people (52.9%) were under 13 years old and 8 people (47.1%) were over 13 years old. 12 people (16.7%) had an oncology specialty, 25 (34.7%) had an anesthesia specialty and 35 (48.6%) had a surgical

specialty. 16 (22.2%) were subspecialists, 14 (19.4%) were specialists and 42 (58.3%) were final year residents.

According to the questions, the attitude towards to cancer pain management and drugs prescription according to instructions of WHO and the Ministry of Health and Medical Education of Iran in Guilan University of Medical Sciences, the highest percentage of complete agreement of Rasht experts to question 6 (Physical dependence while using drugs is a sign of addiction) and their biggest objection was to question 13 (The patient should bear the pain). Also, the attitude score of Rasht city experts is 29.44 ± 8.58 [Table 1].

Based on the average score, it can be said that the attitude of Rasht experts towards how to manage cancer pain and prescribe drugs according to the instructions of WHO and the Ministry of Health and Medical Education of Iran in Guilan University of Medical Sciences in 2020 was moderate. Also, out of 72 subjects, 8 (11.1%) had a poor attitude, 56 (77.8%) had a moderate attitude and 8 (11.1%) had a good attitude. The table above shows that out of 72 people, 40 (55.6%) were male and 32 (44.4%) were female, and out of 40 boys, 2 (0.5%) had a poor attitude. 33 people (82.5%) had a moderate attitude and 5 people (12.5%) had a good attitude. Among the 32 women studied, 6 (8.18%) had a weak attitude, 23 (71.9%) had a moderate attitude and 3 (9.4%) had a good attitude [Table 1].

Using the Fisher test, it can be concluded there is no significant relationship between gender and the attitude of Rasht experts ($p= 0.238$). In both groups, more than 70% had an average attitude towards cancer pain management and prescription of drugs according to instructions of WHO and the Ministry of Health and Medical Education of Iran in Guilan University of Medical Sciences. [Table 2]

The results of [Table 3] showed that out of 72 people studied, 17 people (24%) wrote their work experience information, of which 9 people (52.9%) were under 13 years of experience and 8 people (47.1%) were over 13 years of experience. Out of 9 people under 13 years of age, 4 (44.4%) had a moderate attitude and 5 (55.6%) had a good attitude. Out of 32 people over

13 years of experience, 5 (62.5%) had a moderate attitude and 3 (37.5%) had a good attitude [Table 3]. Fisher test related to these results showed that there is no significant relationship between the background and attitude of Rasht experts ($p= 0.637$). The table above shows that out of 72 people studied, 12 (16.7%) had an oncology specialty, 25 (34.7%) had an anesthesia specialty and 35 (48.6%) had a surgical specialty. Out of 12 oncology specialists studied, 4 (33.3%) had a moderate attitude and 8 (66.7%) had a good attitude. Of the 25 anesthesia specialties studied, 8 (32%) had a poor attitude and 17 (68%) had a moderate attitude. Of the 35 surgical specialties studied, all 35 (100%) had moderate attitudes [Table 3].

Based on Kruskal-Wallis test on the results of [Table 4] it can be concluded there is a significant relationship between the type of specialization and the attitude of Rasht specialists ($p= 0.0001$) and the oncology group has a stronger attitude than the surgery group and the surgery group has a stronger attitude than the anesthesia group on how to manage cancer pain and prescribe drugs according to the instructions of the WHO and the Ministry of Health and Medical Education of Iran in Guilan University of Medical Sciences [Table 4]. Out of 72 people studied, 16 (22.2%) were subspecialists, 14 (19.4%) were specialists and 42 (58.3%) were specialty assistants. 8 people (50%) had a moderate attitude and 8 people (50%) had a good attitude. Of the 14 specialists studied, 1 (7.1%) had a poor attitude and 13 (92.9%) had a moderate attitude. Out of 42 specialty assistants studied, 7 (16.7%) had a poor attitude and 35 (83.3%) had a moderate attitude.

According to [Table 5] and using the Kruskal-Wallis test, it was shown that there is a significant relationship between expertise and attitude of Rasht experts ($p= 0.0001$). So that the subspecialty group has a stronger attitude than the expert group and the expert group has a stronger attitude than the expert assistant group on how to manage cancer pain and prescribe drugs according to the instructions of the WHO and the Ministry of Health and Medical Education of Iran in Guilan University of Medical Sciences [Table 5].

Table 1: Frequency distribution of answers to questions related to the attitude of Rasht experts

| Row | Questions | Completely agree (%) | Agree (%) | No idea (%) | Disagree (%) | Completely disagree (%) |
|-----|--|----------------------|------------|-------------|--------------|-------------------------|
| 1 | Any patient who takes drugs to relieve pain is at a 25% or higher risk of becoming addicted | 11 (15.3%) | 37 (51.4%) | 1 (1.4%) | 17 (23.6%) | 6 (8.3%) |
| 2 | Acetaminophen codeine tablets are approximately equivalent to 10 mg of oral morphine. | 5 (6.9%) | 17 (23.6%) | 29 (40.3%) | 16 (22.2%) | 5 (6.9%) |
| 3 | The administration of pethidine is better than morphine due to the patient's preference. | 16 (22.2%) | 27 (37.5%) | 8 (11.5%) | 13 (18.1%) | 8 (11.1%) |
| 4 | Respiratory depression is rare when drugs are used regularly. | 7 (9.7%) | 23 (31.9%) | 9 (12.5%) | 31 (43.1%) | 2 (2.8%) |
| 5 | The dose of opioids for breakthrough pain should be 10% of the total daily dose. (Every 1 to 2 hours depending on the patient's needs) | 4 (5.6%) | 26 (36.1%) | 33 (45.8%) | 7 (9.7%) | 2 (2.8%) |
| 6 | Physical dependence while using drugs is a sign of addiction. | 19 (26.4%) | 43 (59.7%) | 1 (1.4%) | 8 (11.1%) | 1 (1.4%) |
| 7 | Patients who complain of the pain out of the ordinary are usually drug users. | 11 (15.3%) | 26 (36.1%) | 7 (9.7%) | 21 (29.2%) | 7 (9.7%) |

| | | | | | | |
|----|---|-------------|-------------|-------------|-------------|-------------|
| 8 | Repeated requests for painkillers usually do not relieve the pain. | 11 (15.3 %) | 20 (27.8 %) | 12 (16.7 %) | 21 (29.2 %) | 8 (11.1 %) |
| 9 | Morphine shortens a patient's lifespan to control cancer pain but makes them feel more comfortable | 6 (8.3 %) | 15 (20.8 %) | 13 (18.1 %) | 31 (43.1 %) | 7 (9.7 %) |
| 10 | Drugs are not prescribed to patients with advanced cardiopulmonary disease due to dyspnea. | 10 (13.9 %) | 22 (30.6 %) | 17 (23.6 %) | 18 (25.0 %) | 5 (6.9 %) |
| 11 | The use of several drugs increases side effects. | 6 (8.3 %) | 32 (44.4 %) | 10 (13.9 %) | 21 (29.2 %) | 3 (4.2 %) |
| 12 | Ketorolac ampoules can be injected intravenously and have an analgesic effect of 10 mg of morphine. | 3 (4.2 %) | 23 (31.9 %) | 23 (31.9 %) | 17 (23.6 %) | 6 (8.3 %) |
| 13 | The patient should bear the pain. | 5 (6.9 %) | 7 (9.7 %) | 7 (9.7 %) | 23 (31.9 %) | 30 (41.7 %) |
| 14 | Opium is better than drugs. | 6 (8.3 %) | 15 (20.8 %) | 20 (27.8 %) | 17 (23.6 %) | 14 (19.4 %) |

Table 2: Distribution of attitude of Rasht experts by gender

| Attitude Gender | Poor (%) | Medium (%) | Good (%) | Total (%) | P-value |
|-----------------|-----------|------------|-----------|-----------|---------|
| Man | 2 (5.0 %) | 33(82.5 %) | 5(12.5 %) | 40(100 %) | 0.238 |
| Woman | 6(18.8 %) | 23(71.9 %) | 3(9.4 %) | 32(100 %) | |
| Total | 8(11.1 %) | 56(77.8 %) | 8(11.1 %) | 72(100 %) | |

Table 3: Distribution of attitudes of Rasht experts by work experience

| Attitude background | Medium (%) | Good (%) | Total (%) | P-value |
|---------------------|------------|-----------|-----------|---------|
| Under 13 years | 4 (44.4 %) | 5(55.6 %) | 9(100 %) | 0.637 |
| Over 13 years | 5(62.5 %) | 3(37.5 %) | 8(100 %) | |
| Total | 9(52.9 %) | 8(47.1 %) | 17(100 %) | |

Table 4: Distribution of attitude of Rasht city experts by type of specialization

| Attitude Type of specialization | Poor (%) | Medium (%) | Good (%) | Total (%) | P-value |
|---------------------------------|-----------|------------|-----------|-----------|---------|
| Oncology | 0(0.0 %) | 4(33.3 %) | 8(66.7 %) | 12(100 %) | 0.0001 |
| Anesthesia | 8(32.0 %) | 17(68.0 %) | 0(0.0 %) | 25(100 %) | |
| Surgery | 0(0.0 %) | 35(100 %) | 0(0.0 %) | 35(100 %) | |
| Total | 8(11.1 %) | 56(77.8 %) | 8(11.1 %) | 72(100 %) | |

Table 5: Distribution of attitude of Rasht experts by the degree of specialization

| Attitude Type of specialization | Poor (%) | Medium (%) | Good (%) | Total (%) | P-value |
|---|-----------|------------|-----------|-----------|---------|
| Specialty | 0(0.0 %) | 8(50.0 %) | 8(50.0 %) | 16(100 %) | 0.0001 |
| Expert | 1(7.1 %) | 13(92.9 %) | 0(0.0 %) | 14(100 %) | |
| Specialty Assistant (final year resident) | 7(16.7 %) | 35(83.3 %) | 0(0.0 %) | 42(100 %) | |
| Total | 8(11.1 %) | 56(77.8 %) | 8(11.1 %) | 72(100 %) | |

DISCUSSION

The results of the current study showed the management of cancer pain and drugs prescription according to the instructions of the WHO by specialists in oncology, anesthesia, and surgery. The present survey had the limitations of all surveys, in that the information gathered is what respondents about they do, rather than what they do on the wards or in their offices.

According to the average score, it can be stated that the attitude of Rasht experts towards the management of cancer pain and drug administration according to the instructions of the WHO in Guilan University of Medical Sciences in 2020 was moderate. There was no significant relationship between gender and attitude of Rasht specialists ($P = 0.238$). The findings are consistent with a U.S. survey of second-year oncology fellows, which noted that only 33% reported receiving explicit education on opioid rotation, and only 23% correctly performed an opioid conversion.^[16]

There was a significant relationship between the expertise and the attitude of Rasht experts ($P = 0.0001$). So that the subspecialty group has a stronger

attitude than the expert group and the expert group has a stronger attitude than the expert residency group on how to manage cancer pain and prescribe drugs according to the instructions of the WHO at Guilan University of Medical Sciences. One study found that oncologists and other therapists who manage cancer pain have fewer defects than pain specialists, and that gaps need to be filled. Especially oncologists over 46-47 years old, their error rate was higher than young oncologists.^[17]

In our study, a significant relationship was observed between the type of specialty and the attitude of specialists ($P = 0.0001$) so that the oncology group had a stronger attitude than the surgical group and the surgical group had a stronger attitude than the anesthesia group on how to manage cancer pain and prescribed drugs. In another study, nurses performed more pain assessments than physicians, and physicians were more knowledgeable about pain management than nurses, and both groups were unaware of the knowledge related to the side effects and pharmacological effects of narcotics while in our study only specialists in the fields of oncology, anesthesia, and surgery from residency to subspecialty were examined.^[7]

In this study, a significant relationship was observed between the specialization and the attitude of Rasht specialists ($P = 0.0001$) so that the subspecialists group had a stronger attitude towards the expert group and the expert group had a stronger attitude towards the expert assistant's group. Similar to another study that had the highest scores for oncologists and the lowest scores for surgeons.^[18] Also in our study, considering that a significant relationship was observed between the type of specialization and the attitude of specialists ($P = 0.0001$), it was found that the oncology group has a stronger attitude than the surgical group. In our study, the attitude score of Rasht experts is 29.44 ± 8.58 . Another study showed that pain management knowledge should be strengthened in physicians, as well as patients' misconceptions about drugs and thus misreporting pain should be corrected with education to increase the quality of life of cancer patients.^[14] According to the results, it can be stated that the attitude of oncologists, anesthesiologists, and surgeons towards the management of cancer pain and drug administration according to the guidelines of the World Health Organization in Guilan University of Medical Sciences in 2020 was moderate, which requires further training to strengthen management Pain is cancer.

CONCLUSION

Nevertheless, the limitations of this study and the need for additional research to assess the extent to which education in pain management can improve patient outcomes, this work suggests that medical oncologists, anaesthesia, and surgery as well as other medical specialists who treat the pain of advanced cancer patients, may lack the knowledge necessary to manage challenging cancer pain syndromes. The results support efforts at targeted education of oncologists and more effective referral to specialists with specific knowledge of cancer pain.

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