



Research Article

Construction of A Case Management Practice Model for Subjective Experience and Needs of Perioperative Patients with Lung Cancer

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Abstract

Objective: To establish a “Case Management Practice Standard for Perioperative Patients of Lung Cancer” by collecting subjective experiences and needs of patients.

Methods: Pre-selected 100 lung cancer patients around the stage, by knowing their different periods of subjective experience and needs, propose appropriate interventions to improve the existing case management program. In the later period, another 100 patients were selected, and the improved program was applied to clinical practice. Finally, compare the subjective experience and needs of the two groups of patients, as well as whether there is a difference in the satisfaction of nursing services.

Result: Were compared in patients undergoing surgery at different times of the subjective experience and needs, the differences were statistically significant ($P < 0.05$); Care satisfaction scores, the differences were statistically significant ($P < 0.05$).

Conclusion: By collecting the subjective experience and needs of perioperative patients with lung cancer, the existing case management plan is continuously improved, and the “Case Management Practice Standard for Perioperative Patients of Lung Cancer” is finally formed for clinical use.

Keywords: Case Management; Demand; Lung Cancer; Perioperative Period; Subjective Experience

Introduction

Case Management (CM) as a patient-centered, coordinated, integrated and provide health care services to focus on work management methods, has been widely used in clinical studies [1-5]. The concept was first proposed in the 1970s [6] by the United States. The American Case Management Association [7] defines it as: a collaborative process that includes assessment, planning, implementation, coordination, monitoring, and evaluation of selected treatments and services. Case managers form a high-quality, cost-effective medical outcome by communicating with patients and coordinating the use of resources to meet their needs. This program has been widely used in the study of various diseases [1,4,8,9], which also includes case management of

tumors. At present, the United States and other Western countries have established a relatively complete tumor case management system, which has formed a standardized management model for diseases such as breast cancer, liver cancer and lung cancer [10-13]. In 2010, China's Taiwan region [14] clearly stipulated that anti-cancer medical institutions should establish a hospital case management model and carry out case management of six major malignant tumors such as lung cancer, liver cancer and breast cancer. In recent years, mainland China [15,16] will also try for case management of breast disease, lung cancer, and achieved some success. In the case management of lung cancer, mainly in radiotherapy and chemotherapy aspects [17,18]. Therefore, this study is based on the case management of patients with perioperative lung cancer, and understands the current problems by understanding their subjective experiences and needs, in order to improve the quality of medical care.

Materials and Methods

General Information

Choose from February 2018 to August 2018 stay in our hospital 200 cases of breast cancer surgery in lung cancer patients for the study. Inclusion criteria: in line with World Health Organization (WHO)diagnostic criteria developed; ASA classification is I~ II level; there are indications for surgery; signed informed consent. Exclusion criteria: those with mental disorders or those with a history of mental illness; those with low education and poor comprehension; those with poor communication skills who do not use Mandarin communication; those with poor treatment compliance; those with other serious primary diseases or malignant tumors.

Method

Case Management Team set up by literature, combined with the actual conditions of our hospital, set up case management team members include: breast cancer surgeon one, a nurse, two counselors, two public nutritionists, specialist 3 nurses.

Training Case Management Nurse This study selected a clinical nurse with more than 3 years of experience in chest tumor surgery and master's degree as a case management nurse. The nurse has a wealth of professional knowledge and a strong sense of responsibility, while having good communication and coordination skills and language skills. The nursing department conducts standardized training and assessment, and then implements case management intervention after passing the examination.

Implementation of case management

In this study, a review of the extensive literature, clinical practice, set design "LUNG CANCER draft of case management options for patients with surgical period," the first draft, using the Delphi method Two rounds of expert consultation letter (letter of inquiry a total of seven experts, four experts for the province, three are outside the province of experts; including deputy chief physician 1, the state two dietitians and counselors each one, more than deputy director of the nurse expert, deputy director of 4) 1 breast cancer surgeon named 1 named director of the nurse specialist hospital tumors, 3 of whom are breast cancer surgery, deputy director of the nurse, charge nurse and one from breast cancer surgery and the national two counselors, one from breast cancer surgery charge nurse and country The second-level public dietitian), the final draft, namely , the case management plan for patients with perioperative lung cancer (hereinafter referred to as the program). While applying the program to clinical practice, case management nurses use non-structural interviews [19] and participatory observations [20] to gain insight into the patient's subjective experience and needs. Customized interventions are tailored to the patient's needs and the program is continuously

refined. Finally, the "Case Management Practice Standards for Perioperative Patients of Lung Cancer" was formed.

During the implementation of this study, 100 patients with perioperative lung cancer (referred to as a group) were selected from February to May 2018, and non-structural interviews (recording of the interview process) were conducted while using the participatory observation method to gain an in-depth understanding of the patient before surgery. Subjective experience and needs at different time points during surgery, 24 hours after surgery, and after surgery to discharge and on the day of discharge. The case management nurse sorts out the collected data and ranks the patient's current painful experience in order of frequency. In response to these experiences, appropriate interventions are proposed to improve existing case management programs. From May to August 2018, another 100patients (referred to as the second group) were selected, and the improved case management program was applied to practice. Unstructured interviews and participatory observations are also used to understand the experiences and needs of patients at different times, and to collate the collected data. Finally, statistical analysis was performed on the data collected by the two groups.

Evaluation Indicators

General clinical data

It includes the patient's name, gender, age, education level, marital status, and type of medical insurance.

Subjective experience and needs of patients

The subjective experiences and needs of the two groups were compared before, during, 24 hours after surgery, and before and after discharge and at the time of discharge.

Satisfaction of nursing service for inpatients

This study used the Chinese version of the Inpatient Hospital Care Service Satisfaction Evaluation Form translated by Susan et al. [21] using the revised version of the LOPSS scale [22]. The scale includes care relationships support (a total of 14 entries) and dissatisfaction of care (a total of 10 entries) in patients two dimensions. Each entry was scored on a Like rt 5 rating, which was very dissatisfied, unsatisfied, average, satisfactory, and very satisfactory, with 1, 2, 3, 4, and 5 points respectively. Satisfaction is the sum of the scores of the two dimensions. The higher the score, the better the patient's satisfaction.

The patient was instructed to fill out the Chinese version of the "Inpatient Care Service Satisfaction Evaluation Form" on the day of discharge to compare the satisfaction of nursing services between the two groups.

Statistical Methods

All data were entered using Excel software and imported into SPSS20.0 for statistical analysis. Before the analysis, the measurement data were all tested for normality. Satisfy the normal distribution, the result is the mean \pm Standard Deviation (SD) indicates; the normal distribution is not satisfied, and the result is expressed as the median (quartile).

Measurement data, if the normal distribution is satisfied, the t test is used, and the rank sum test is used if the normal distribution

is not satisfied. The count data was checked by χ^2 .

Test level: $\alpha = 0.05$; when $P < 0.05$, the difference was considered statistically significant.

Result

General Clinical Data

Two groups of patients generally, namely age, sex, education level, marital status and type of health insurance, the difference was not statistically significant ($P > 0.05$), comparable. See (Table 1).

Project	One group (n=100)	Two groups (n=100)	χ^2 / t value	P value
age	63.21 \pm 8.21	62.08 \pm 6.46	0.561 ²	0.426
Gender (male / female)	48 / 52	49 / 51	0.601 ¹	0.773
Education level [example (%)]				
primary school	40(40.0)	37(37.0)	0.532 ¹	0.885
junior high school	33(33.0)	37(37.0)		
Technical secondary school / high school	17(17.0)	13(13.0)		
College and above	10(10.0)	13(13.0)		
Marital status [example (%)]				
unmarried	7(7.0)	0(0.0)	0.3111	0.404
married	73(73.0)	83(83.0)		
Divorced	3(3.0)	7(7.0)		
Widowed	17(17.0)	10(10.0)		
Type of medical insurance [example (%)]				
Self-pay	17(17.0)	23(23.0)	0.7811	0.701
Urban workers	30(30.0)	27(27.0)		
NCMS	53(53.0)	50(50.0)		
*Note: 1 is expressed as χ^2 value; 2 is expressed as t value.				

Table 1: Comparison of the general situation of the two groups of patients.

Construction of Patient Management Model for Perioperative Period of Lung Cancer

Case management nurses used non-structural interviews and participatory observation methods to obtain subjective experiences and needs of perioperative patients with lung cancer, and targeted interventions to continuously improve the original case management plan, and finally form the perioperative period of lung cancer. Patient Case Management Practice Standards. See (Table 2) for details.

(Is it “ mode “ or “ scheme “ or “ standard”?)

stage	Subjective experience or demand	Intervention based on patient needs
Preoperative	Surgery staff; operation time, specific stage; preoperative preparation; preoperative diet; surgical method; surgery cost; hospitalization time	On the day before surgery, medical communication, clear the operator, time, method and sequence of the relay; issue pre-operative missions, including precautions, need for spares, fees and diet, etc.;
Intraoperative	Intraoperative risk; anesthesia, risk of anesthesia; whether there is pain or discomfort during surgery	On the day before surgery, communicate with the anesthesiologist to understand the anesthesia method, the risk of anesthesia and the preventive strategy to be taken; inform the patient that the anesthesiologist will visit the preoperative visit to solve the doubts in detail.
Postoperative twenty four hour	Incision pain; thirst; when to eat; nausea, vomiting and dizziness, etc.; whether the monitor value is normal; how to care for the indwelling catheter; postoperative considerations	Incision pain: Pain told the reason, the impact on postoperative pain relief and assess the way; issuing missionary handbook; for those who do not want to turn over or sputum guidance; understanding and tolerance of pain experienced; Zunzhu line PCAanalgesia Thirsty: guide moist lips and mouthwash; slice pear or cucumber, included in the lips; air conditioning regularly switch to avoid drying Diet: follow the guidance diet Other complications: inform the cause of postoperative nausea, vomiting and dizziness, and preventive measures; follow preventive medication ECG monitoring: tell the meaning of the monitor value and the normal range Drainage tube care: properly fixed; close observation of drainage fluid; avoid compression or distortion; regular extrusion; inform extubation indication
Postoperatively before discharge	Incision pain; sputum is not easy to cough up; diet guidance; how to take tube activity; when to extubate; feel smooth breathing, can stop oxygen; postoperative dry cough; when to be discharged	Strengthen guidance on issues that still exist in patients Cough and cough: a small amount of drinking water; follow the atomized inhalation; guide effective cough (such as oppression of Tiantu points, stimulate cough); physical deficiency, intravenous high nutrition therapy Diet: Guide a small number of meals, gradually transition Band tube activity: mainly guide patients to maintain drainage and prevent backflow Postoperative dry cough: tell the cause of dry cough; follow the medication Communicate with doctors in a timely manner on whether to take oxygen and when to extubate or discharge
Day of discharge	How to discharge; required materials; dietary guidance; disconnection; when to review; catheter maintenance	Disbursement of the missionary list, including the discharge process, required materials, dietary guidance, review time and catheter maintenance; oral re-education for the patient; patients will be discharged from the responsible nurses before they can be discharged

Table 2: Construction of case management model for perioperative patients with lung cancer.

Subjective Experience and Needs Comparison Between the Two Groups of Patients

This study evaluated the needs of the two groups of patients before, during, 24 hours after surgery, before and after discharge, and at the time of discharge. The two groups, the differences were statistically significant (P <0. 05). See (Table 3).

(What is the number of examples compared below? Does it mean consultation with this question? Why are the questions, what are the most important needs of such patients? Suggestions are summarized from the perspective of the need for hierarchical theory)

	Serial number	Subjective experience or demand	Number of cases (%)		P value
			One group	Two groups	
Preoperative	1	Who is the surgeon? Is the director still a doctor?	90 (90.0)	17 (17.0)	0
	2	What time is the surgery? How many arrangements are there?	83(83.0)	17 (17.0)	0.003
	3	What preparations are needed before surgery?	80 (80.0)	20(20.0)	0.012
	4	Can I still eat before surgery?	73 (73.0)	13 (13.0)	0.025
	5	Can you drink water before surgery?	63(63.0)	10(10.0)	0.023
	6	What is the surgical procedure, the size of the incision?	50(50.0)	10(10.0)	0.031
	7	What is the cost of surgery?	40 (40.0)	7 (7.0)	0.029
	8	Can I be discharged after a few days after surgery?	30 (30.0)	0 (0.0)	0.043
Intraoperative twenty-four hour	1	What are the dangers during surgery?	83(83.0)	13 (13.0)	0.007
	2	What is the method of anesthesia? Is there any danger?	67(67.0)	7 (7.0)	0.011
	3	Will the surgery process hurt?	53(53.0)	0 (0.0)	0.03
	4	What should I do if I feel uncomfortable during the operation?	40 (40.0)	0 (0.0)	0.037
Postoperative twenty-four hour	1	Wound pain, what should I do?	100 (100)	17 (17.0)	0
	2	Thirsty, can you drink water?	97 (97.0)	10(10.0)	0
	3	When can I eat?	90 (90.0)	17 (17.0)	0.004
	4	Feeling sick, vomiting, normal?	77 (77.0)	7 (7.0)	0.006
	5	Feeling dizzy, normal?	67(67.0)	7 (7.0)	0.013
	6	Is the value of the monitor normal?	57(57.0)	10(10.0)	0.024
	7	How to move the indwelling drainage tube?	50(50.0)	3 (3.0)	0.031
	8	What should I pay attention to after surgery?	30 (30.0)	7 (7.0)	0.045
Postoperatively before discharge	1	Wound pain, what should I do?	100 (100)	20(20.0)	0.001
	2	痰 It is not easy to cough up, what should I do?	87 (87.0)	10(10.0)	0.017
	3	What can I eat now?	73 (73.0)	13 (13.0)	0.026
	4	How to move the indwelling drainage tube?	57 (57.0)	13 (13.0)	0.035
	5	When is the extubation?	47(47.0)	17 (17.0)	0.042
	6	When do you stop taking oxygen?	33 (33.0)	10(10.0)	0.046
	7	Why is it coughing after surgery?	30 (30.0)	10(10.0)	0.049
	8	When is it discharged?	27 (27.0)	3 (3.0)	0.04

Discharged the same day	1	How to apply for discharge? materials needed?	100 (100)	10(10.0)	0
	2	Diet should be avoided after discharge?	97 (97.0)	13 (13.0)	0
	3	When will the line be broken?	73 (73.0)	13 (13.0)	0.026
	4	When will you review?	63(63.0)	17 (17.0)	0.038
	5	How to maintain the catheter after discharge?	40 (40.0)	7 (7.0)	0.044

Table 3: Comparison of subjective experience and needs between the two groups of patients.

Comparison of Nursing Service Satisfaction Between the Two Groups of Patients

Care satisfaction scores of the two groups, the difference was statistically significant ($P < 0.05$). See Table 4 for details.

(How reliable is this table? The following two are too convincing, list all the items)

project	One group	Two groups	t value	P value
Total score	91.83± 5.88	99.02± 6.90	6.011	0
Nursing interpersonal support	59.73±4.03	64.16± 5.52	3.852	0.014
Patient dissatisfaction with care (Is this the content of the entry in the evaluation form?)	32.10 ± 3.97	34.86± 3.43	5.021	0

Table 4: Comparison of nursing service satisfaction scores between the two groups of patients (points).

Discussion

“Case Management Practice Standards for Patients with Perioperative Lung Cancer “ Is Practical and Can Be Used in Clinical Practice

The subjects selected in this study were lung cancer patients with thoracic tumor surgery in our hospital. The department has the characteristics of complicated patient conditions, heavy work tasks and insufficient human resources for nursing. The nurse in the daily care of the heavy work, it is often easy to overlook the patient’s experience and needs that arise nurse-patient communication is not timely, patient needs are not met, thereby affecting the quality of health care services. Therefore, how to meet the health needs of patients while ensuring the quality of daily care work has become a difficult problem to overcome. Case management as a process of integration and cooperation of health care, through adequate communication, exchange and rational use of resources to improve the quality of services to meet the health needs of patients. At

present, this model has been widely used in Europe, America and Hong Kong and Taiwan, especially in chronic diseases such as cancer and diabetes [10-14]. Compared with the conventional care mode, the case management is more targeted, able to solve the problems existing in the patient in a timely and effective manner, and can fully demonstrate the human care of the patients.

In the course of the study, case management nurses in regular contact through the use of non-structured interviews and participant observation with patients to understand their subjective experience and needs, the use of multi-disciplinary participation model of care and resources available for patients with persistent, Coordinated and timely care services. At the same time, the case management nurses integrated the data and finally formed the “Case Management Practice Standards for Perioperative Patients of Lung Cancer” (hereinafter referred to as the standard). In order to verify the practicability and reliability of the standard, the case management nurse applied it to the clinic for data collection, comparing the subjective experience and needs of the two groups before and after. The results show that the first two groups of patients, intraoperative, after 24 hours, before and after surgery to discharge discharged the same day at different times of subjective experience and needs, the difference was statistically significant ($P < 0.05$). Therefore, the standard is clinically useful and can be used for case management practice in perioperative patients with lung cancer.

Through Case Management Intervention, It Can Effectively Improve the Satisfaction of Nursing Service for Inpatients

The satisfaction of the nursing service of the inpatient is the satisfaction degree of the patient’s nursing service items during the hospitalization period, and it is also the most intuitive experience and personal experience of the patient, and the evaluation of the quality nursing service. An important criterion for the effectiveness of work. This study applied a case management model to patients with perioperative lung cancer. The model is characterized by patient-centered, continuous communication and communication between case management members, timely solving the problems existing in the patient, and changing the nursing service work from “passive” to “active” to achieve the purpose of improving the

quality of nursing services. The results of this study showed that both groups of patients care satisfaction scores, the differences were statistically significant ($P < 0.05$). Explain that case management can effectively improve the satisfaction of nursing services for inpatients, which is consistent with the results of Xiao [23].

Summary

In this study, the subjective experience and needs of patients with perioperative lung cancer were solved. Through the implementation of case management, various problems encountered during perioperative period were solved, and the "Case Management Practice Standards for Perioperative Patients of Lung Cancer" was finally formed. However, there are still many shortcomings in this study. For example, the study subjects are only for perioperative patients, and there is no ongoing case management for patients who are discharged after surgery. This will be a direction for the follow-up efforts of this study.

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