Application of One-stop Nursing Management Model in Tumor Daytime Chemotherapy

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Abstract: Objective: To explore the practical effect of one-stop nursing management mode applied to daytime chemotherapy for tumors. Method: 1000 patients who received daytime chemotherapy for tumors in our hospital from January 2024 to January 2025 were selected as the study subjects. Using random grouping method, patients were divided into a control group and an observation group, with 500 cases in each group. The control group implemented a routine nursing management model, while the observation group constructed a one-stop nursing management model. Result: The treatment time of the observation group patients was significantly shorter than that of the control group. In terms of the incidence of nursing adverse events, the observation group was significantly lower than the control group. However, in terms of satisfaction, the satisfaction of the observation group patients was significantly higher than that of the control group, and the difference was statistically significant (P<0.05). Conclusion: The application of one-stop nursing management mode in tumor daytime chemotherapy effectively shortens the patient's visit time, reduces the incidence of nursing adverse events, improves patient satisfaction, and provides better and more efficient nursing services for tumor daytime chemotherapy patients. It has high promotion and application value in clinical nursing work.
***Keywords*:** One-stop nursing management model; Daytime chemotherapy for tumors; Nursing quality; Satisfaction level

1. Introduction

The one-stop nursing management model integrates multiple medical links to form a comprehensive nursing service system, aiming to improve patients' medical efficiency and clinical nursing quality, reflecting the concept of high-quality nursing[1]. However, in the context of hospital service reform, the definition of this model in terms of content and institutional norms is unclear, and there are uncertain factors in its implementation, which affect the effective care of patients throughout their life cycle by nursing staff[2]. To improve this situation, this study optimizes the one-stop nursing service process for daytime treatment, innovatively develops a refined "5A and 3+3" chemotherapy drug safety management model, optimizes continuous nursing services, strengthens humanistic care and other measures, ensures seamless connection between various stages of chemotherapy, improves nursing work efficiency and accuracy, and provides guarantees for the high-quality development of the nursing profession.

2. Research Materials and Methods

2.1 General Information

1000 patients who underwent tumor daytime chemotherapy in our hospital from January 2024 to January 2025 were selected as the research subjects [3]. Using the random number table method, these 1000 patients were randomly divided into a control group and an observation group, with 500 cases in each group. In the control group, there were 280 male patients and 220 female patients; The age range is between 35-75 years old, with an average age of (55.3 ± 8.5) years old; In the observation group, there were 270 male patients and 230 female patients; The age range is between 32-78 years old, with an average age of (56.1 ± 9.2) years old; Statistical analysis was conducted on the general information such as gender and age of the two groups of patients, and the results showed no statistically significant difference (P>0.05), indicating good comparability between the two groups of patients and providing a reliable basis for subsequent research.

2.2 Experimental methods

The control group received routine nursing care, while the observation group established a one-stop nursing management model. Firstly, the daytime treatment process was optimized by setting up a one-stop service center in the nurse's office. Patients can complete admission, medical insurance, payment, medical treatment, examination appointment, discharge, etc[4]. in one stop, and can also monitor electrocardiograms, make appointments for B-ultrasound, etc. in the ward, reducing the rush between departments, improving medical efficiency and patient satisfaction. Secondly, establish a "5A and 3+3"

chemotherapy medication safety management model. ① inquiry stage (Ask): When patients seek medical treatment, the supervising doctor will inquire about their condition, and for those who meet the conditions for hospitalization chemotherapy, a hospitalization certificate will be issued and a bed reservation will be made. Notify the patient or family one day before admission to arrange the admission time and inform the nurse to reserve a bed; The main nurse called the patient to inquire about their general situation and management, and reminded them to bring necessary daily necessities and documents upon admission. ② Assessment stage: After admission and successful check-in, the responsible nurse introduces herself at the bedside, checks patient information, introduces the ward environment and staff, inquires about medical history, allergies, medication history, pipeline conditions, etc; Subsequently, based on the understanding of the situation, collaborate with the supervising doctor to implement an integrated assessment of medical care, such as patient general condition, laboratory tests, imaging examinations, treatment plan, nature of drugs used, vascular access, patient psychological status, compliance, and self-management ability. ③ Advice+"three check" stage: "First check" refers to the situation where the supervising doctor issues a chemotherapy order based on the patient's condition. After receiving the order, the main nurse checks the treatment form with the medication nurse before preparing the medication; The "second check" refers to the responsible nurse and the supervising doctor verifying that the treatment prescription can be dispensed; The third check "means that the responsible nurse and the medication nurse must verify the completion status of the treatment order and medication dispensing before administering the medication. During the medication process, it is necessary to strictly follow the doctor's advice, first administer drugs such as gastric protection, acid suppression, antiemetic, etc., and confirm that there is no leakage before administering anti-tumor drugs. Close observation should be made of any abnormalities in the indwelling needle site, and the patient or (and) their family members should be informed of the effects of the administered drugs, possible adverse reactions, risk factors for drug leakage, and precautions for chemotherapy pumps; Remind patients and their families not to adjust the infusion rate without authorization and avoid any potential adverse consequences; Guide patients to have a healthy diet and avoid consuming raw, cold, stimulating, overnight, or spoiled food. ④ Assist+"three inspections" stage: During the process of chemotherapy drug infusion, strengthen patrols, closely observe the infusion situation, and strengthen restraint on agitated patients; Place daily necessities such as pagers in easily accessible areas for patients; Assist patients in arranging comfortable positions, using the toilet, pouring water, keeping warm and other daily care; Provide psychological support and behavioral guidance to patients; After chemotherapy, continuously observe and record the skin condition at the puncture site, whether there are delayed reactions, gastrointestinal reactions, systemic fatigue, and other chemotherapy related adverse reactions on D1, D2, and D3, and conduct a "3D observation" after chemotherapy. ⑤ Attention stage: Patients who leave the hospital 24 hours later will be followed up by phone through WeChat, phone, text messages, and other means to inquire about chemotherapy adverse reactions, skin conditions at the puncture site, and pipeline conditions. Afterwards, follow-up will be conducted once a week or at different intervals based on the patient's specific situation to ensure their safety at home[5]. Finally, to strengthen humanistic care, nursing staff pay attention to communication with patients throughout the nursing process, listen to their demands, pay attention to their psychological needs, provide psychological counseling, alleviate patients' anxiety and fear, and enhance their confidence in overcoming the disease.

2.3 Observation indicators

(1) Consultation time: Accurately record the total time from the patient entering the hospital gate to leaving the hospital after completing chemotherapy.

(2) Incidence of nursing adverse events: Comprehensive statistics on various nursing adverse events that occurred during chemotherapy in two groups of patients, such as local tissue damage caused by chemotherapy drug leakage, patient falls and injuries in the ward, and failure to detect and handle chemotherapy adverse reactions in a timely manner [6].

(3) Satisfaction: Conduct a self-designed satisfaction survey questionnaire on patients. The questionnaire mainly evaluates patients' satisfaction with nursing service attitude, nursing technology level, and nursing process rationality, and is divided into three levels: very satisfied, satisfied, and dissatisfied.

2.4 Research on Count Statistics

Use SPSS 22.0 software specifically designed for data analysis [7]. If the data has specific numerical values and can be averaged, write it in the form of (± s). If there is any difference between two sets of this data, use t-test. If the data is clear and quantifiable, such as the number of people or individuals, then use the chi square test. If the value of P is less than 0.05, it indicates that the difference between these two sets of data is meaningful.

3. Results

3.1 Visit time

According to statistical analysis, the observation group had significantly shorter treatment times than the control group, and the difference was statistically significant (P<0.05). The detailed data is shown in Table 1 below:

Table 1. Comparison of Effects between Two Groups

Index	Control group	Observation group	t	P
Visit time (hours)	4.5±1.2	3.0±0.8	18.72	<0.05

3.2 Incidence of adverse nursing events

The incidence of nursing adverse events in the observation group was significantly lower than that in the control group, and the difference was statistically significant (P<0.05). The specific data is shown in Table 2 below:

Table 2. Comparison of Effects between Two Groups

Index	Control group	Observation group	χ^2	P
Incidence of local tissue damage due to leakage of chemotherapy drugs (%)	5.0(25/500)	1.0(5/500)	15.38	<0.05
Injury incidence of patient falls in the ward (%)	3.0(15/500)	0.8(4/500)	7.86	<0.05
The incidence of the adverse reactions to chemotherapy were not detected and treated in time (%)	4.0(20/500)	2.2(11/500)	3.88	<0.05
The overall incidence of nursing adverse events was (%)	12.0(60/500)	4.0(20/500)	25.00	<0.05

3.3 Satisfaction level

The satisfaction of the observation group patients was significantly higher than that of the control group, and the difference was statistically significant (P<0.05). The specific data is shown in Table 3 below:

Table 3. Comparison of Effects between Two Groups

Index	Control group	Observation group	χ^2	P
Very satisfied with the (%)	30.0(150/500)	50.0(250/500)	31.25	<0.05
Satisfied (%)	50.0(250/500)	45.0(225/500)	2.50	> 0.05
Discontent (%)	20.0(100/500)	5.0(25/500)	37.50	<0.05
Degree of satisfaction (%)	80.0(400/500)	95.0(475/500)	41.67	<0.05

4. Discussion

4.1 Improve medical efficiency

In the past, patients had to travel back and forth between multiple stages such as registration and medical treatment, which was time-consuming, laborious, and prone to anxiety. Nowadays, one-stop operation is available, reducing waiting times and significantly shortening the time for medical treatment. This not only facilitates patients, but also optimizes hospital resource allocation, improves work efficiency, improves medical order, reduces negative emotions of patients, and enhances the overall medical experience [8].

4.2 Reduce the risk of adverse events

The "5A and 3+3" chemotherapy drug safety management model is the key to ensuring chemotherapy safety. Comprehensive assessment of the patient's body, medication, and allergy history before chemotherapy lays the foundation for personalized and safe chemotherapy plans. Accurately informing drug information during chemotherapy, enhancing patient cooperation, accurately identifying blood vessels, reducing the risk of drug leakage, closely observing and promptly handling adverse reactions, ensuring the safety of the entire chemotherapy cycle, reducing the incidence of nursing adverse events, and improving the safety and effectiveness of chemotherapy [9].

4.3 Improve patient satisfaction

Continuing nursing involves following up with patients via phone and WeChat to understand their physical, medication, and psychological conditions after discharge, and providing timely professional guidance. In terms of humanistic care, nursing staff pay attention to communicating with patients, listening to their demands, guiding their psychology, and

alleviating their anxiety and fear. Comprehensive care allows patients to feel the humanization of nursing and significantly improves satisfaction [10].

5. Conclusion

This study shows that the one-stop nursing management model has significant advantages in the application of daytime chemotherapy for tumors. In the future, clinical nursing should vigorously promote this model, continuously optimize nursing processes, improve nursing quality, benefit more cancer patients, and promote the high-quality development of nursing.

References

[1] Na Yu, Qingge Chen.Application of one-stop nursing management model in evaluating the effectiveness of breast cancer daytime chemotherapy patients [J]. Marriage and Health, 2023, 29 (19): 118-120.

[2] Guimian Qiu.The application effect of nursing intervention combined with health education based on communication standard theory in cervical cancer chemotherapy patients [J]. Chinese and Foreign Medical Research, 2022, 20 (25): 98-102.

[3] Shanshan Li, Baolin Shi, Yujie Cai.etc Analysis of Hospital Satisfaction Survey of Cancer Day Chemotherapy Patients under Whole Process Management Mode [J]. China Rural Health Service Management, 2024, 44 (04): 251-255+304.

[4] Wenfeng Yang.The application effect of one-stop nursing in patient entry and exit nursing management [J]. Chinese Community Physicians, 2024, 40 (21): 105-107.

[5] Ziying Yong.The effect of one-stop prenatal screening nursing service model applied in obstetrics outpatient department [J]. Famous Doctor, 2024, (15):159-161.

[6] Wenjing Ding,Xiaojiao Shen, Jing Chen.The impact of nursing intervention based on comprehensive evaluation of the elderly on the occurrence of adverse events and quality of life in elderly patients with coronary heart disease [J]. Journal of Aerospace Medicine, 2025, 36 (01): 95-98.

[7] Hui Sun. A Feedback Study on Flipped Classroom in College English: Attribution Analysis Based on SPSS 22.0 [J]. Modernization of Education, 2015, (14):184-187.

[8] Bo Jiang.Application effect of one-stop nursing mode supported by Internet technology in chronic disease management [J]. Integrated Chinese and Western Medicine Nursing (Chinese and English), 2021,7 (11): 187-189.

[9] Juanling Sun, Yang Yang,Lu Qian, Xin Dong,Biyu Fang.The application effect of one-stop nursing management mode in ophthalmic day surgery [J]. Clinical Medical Research and Practice, 2019,4 (34): 166-168.

[10] Dong Li, Bei Wang, Xiaomin Zhu, Zhuyun Xia,Qiyuan Zhu. Application of one-stop nursing management model in evaluating the implementation effect of daytime chemotherapy for breast cancer patients [J]. Journal of Nurse Continuing Education, 2018, 33 (07): 611-612.

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