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Description of the Implementation of Intravenous Infusion Treatment in the Internal Medicine Room

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ABSTRACT

Purpose: The goals of IV care are to maintain aseptic technique, prevent bacterial invasion of blood vessels, prevent infection, and observe the IV insertion site. **Method:** This research uses descriptive research with a quantitative approach. The sample from this research was 42 respondents taken using G-Power statistical calculations. The population of this study was 42 respondents. In March – April 2022. **Results:** Shows from 42 respondents that 20 actions are appropriate and 22 actions are not appropriate for infusion treatment in the disease unit in the Ciamis Regency Regional Hospital. **Conclusion:** Based on the survey conducted, there were no infusion treatments that were not carried out because they did not or did not have an SOP for infusion care at Ciamis Regional Hospital, so the results obtained were 20 actions in accordance with the SOP and 22 actions not in accordance with the SOP

Keywords: Infusion care, SOP

Introduction

Hospitals are public health facilities with unique characteristics that are influenced by developments in health science, advances in technology and socio-economic life of the community, improving quality and better community services at affordable prices (Amalia, Pebrianti, & Nurhikmah, 2023). So, to achieve the highest level of health (RI Law No. 44 of 2009). Nursing services in hospitals are part of general medical services and are actually concentrated in hospital rooms, patient care is provided 24 hours, and the concept of professional service or long term care (Kurniawan et al., 2021).

Infectious diseases associated with health services or Healthcare Associated Infections (HAIs) are one of the health problems in various countries in the world, including Indonesia (Putra & Fatmawati, 2022). The World Health Organization reported in 2016 that a total of 15,000 hospitalized patients with HAI had an incidence of 75% in Southeast Asia and sub-Saharan Africa, with 4–56% identified as the cause of neonatal death. In 2014, the number of HAI cases was 722,000 and 75,000 inpatients died due to HAI (CDC, the number of HAI cases reached 4.8-15.5, and the incidence in Indonesia was 15.74% higher than in developed countries (Solehudin et al., 2023).

Intravena treatment is an action carried out by changing the dressing/patch in the IV area (Perry & Potter, 2005). Care of an implanted IV is the nurse's responsibility and requires

knowledge of the fluids used and principles of flow (Inayati, F., & M., 2022). Patients should be evaluated carefully. Pay attention to local and systemic complications (C.Smeltzer & G.Bare, 2018). The goals of IV care are to maintain aseptic technique, prevent bacterial invasion of the blood vessels, prevent infection, and observe the IV insertion site (C.Smeltzer & G.Bare, 2018).

According to WHO (2016), the annual incidence of phlebitis is 5%. A WHO-assisted prevalence study in 14 countries from 55 regional hospitals (Europe, Eastern Mediterranean, Southeast Asia and West Pacific) found that 87% of inpatients experienced phlebitis. Prevalence of phlebitis in the following regions: (7.7%) Europe, (9%) Western Pacific, (11.8%) Eastern Mediterranean and (10%) Southeast Asia (Safitri & Fibriana, 2020).

There is no definite data regarding the prevalence of phlebitis in Indonesia, possibly because research and publications related to phlebitis are still rare (Depkes, 2017). The prevalence of phlebitis in Indonesia for public hospitals is 50.11% while for private hospitals it is 32.70% (Ramdini, Mahfud, & Nurinda, 2017). The incidence of phlebitis at Ciamis Regional Hospital decreased by 303 in 2017, 305 in 2018, 109 in 2019, 1 in 2020 and from January to October 2021 there were 11 people (Panitia PPI RSUD Ciamis, 2021).

Phlebitis is a nosocomial microbial infection that is acquired by a patient during admission to hospital, with signs and symptoms at least 3 times in 24 hours (Amalia et al., 2023). Phlebitis is defined as inflammation of a vein due to chemical or mechanical irritation characterized by a red, hot area of swelling and tenderness around the puncture site or along the vein (Smeltzer & Bare, 2012). The Infusion Nursing of Practice, namely the occurrence of phlebitis can be dangerous which will cause a clot in blood vessels or thrombophlebitis can become an embolism which can cause serious injury permanent damage to blood vessels (Kurniawati, Budiarti, & Irianto, 2022). The incidence of phlebitis increases with the duration of infusion as these events may require longer treatment times and thus may increase the rate of phlebitis in patients (Andriani, 2020).

The results of the study showed that patients..treated..inpatient..in..ward..Mawar.. RSUD Dr had a relationship between infusion treatment and phlebitis. with very good infusion treatment and no phlebitis (0%), very good infusion therapy resulted in phlebitis (0%), good infusion treatment without phlebitis 12 patients (40%) good infusion treatment experienced phlebitis 1 patient. 6 patients (20.0%) received incomplete infusion treatment and had no phlebitis, 11 patients (37.0%) received complete infusion treatment and had phlebitis. From research data, patients who do not receive complete and poor infusion treatment have a risk of developing phlebitis (Andriati, Purnama, Indah, & Prawida, 2021).

A preliminary study using observations and interviews conducted by the author on December 13 2021 in one of the internal medicine inpatient units at the Ciamis District General Hospital, the author found 7 female patients, 4 patients with signs of phlebitis (redness, swelling, pain) and in 4 male patients there were 2 patients with signs of phlebitis (swelling, redness, pain). According to the Infusion Nursing Society, 2016, phlebitis is indicated by redness, pain, swelling, heat and loss of function in the puncture area, so it is indicated that you have phlebitis (Setiarti., Wijaya, & Scholastica Fina Aryu P., 2023). Of the 11 long-term infusion patients, 8 patients had more than 3 days, and 3 patients had less than 3 days. Apart from that, in the interview the patient said he did not receive infusion treatment according to standards because there was no SOP for infusion treatment at Ciamis Hospital.

Methods

This research uses descriptive research with a quantitative approach. Research methods based on positivist philosophy are used to investigate a population and analyze data quantitatively or statistically, with the aim of testing the proposed hypothesis (Sugiyono,

2012). According to Sugiyono (2012, descriptive studies are studies in which one or more (independent) variables are studied without making comparisons or linking them with other variables. Based on this theory, quantitative descriptive studies analyze the research population by providing data obtained from samples. The descriptive method of this research aims to describe the implementation of intravenous infusion treatment in the internal medicine ward at Ciamis Regional General Hospital in 2022. The sample from this research was 42 respondents taken using G-Power statistical calculations.

Result

From data collected on infusion treatments in the internal medicine ward at Ciamis Regional General Hospital in 2022 as follows:

Table 1. Frequency distribution of intravenous infusion treatment in the internal medicine ward

Infusion treatment	F	%
In accordance	20	47,7
Not accordance	22	52,3
Total	42	100 %

Table 1. shows that 20 actions (47.7%) are appropriate and 22 actions (52.3%) are not suitable for infusion treatment in the internal medicine department of the Ciamis District General Hospital in 2022.

Discussion

Based on a research survey using an observation sheet on 42 infusion treatment actions carried out in the internal medicine unit of Ciamis Regional Hospital in 2022, the majority of 22 actions (52.3%) were classified as inappropriate from the total of 42 respondents, Ciamis Hospital does not yet have an IV treatment SOP. , so that nurses carry out intravenous infusion maintenance actions based on their own knowledge and not all nurses carry out the same actions. Nurses carry out infusion treatment as requested by the patient's family, which is also influenced by the high workload of nurses and unfavorable room conditions. Nurses in spatial conditions that are detrimental to the implementation of infusion care need guidelines or standards as a reference so that when carrying out an action they can be scientifically justified that the action was not carried out in accordance with the reference or SOP guidelines which say that it cannot be justified scientifically and documented administratively.

The accuracy of implementing IV infusion treatment by nurses in the internal medicine unit at Ciamis Regional Hospital can be seen from the results of the analysis of each question item. Most actions were taken with an average answer of yes. This means that as many as 24 actions regarding the SOP questions were used as a reference for the research. The results of this study are in line with Andriani (2020) that infusion treatment is an intervention given by caregivers to patients who are being given fluids according to the correct protocol, avoiding unwanted effects, avoiding infection or preventing the entry of microorganisms into the blood vessel system. Daily fluid care must also be carried out at the injection site, if necessary change the dressing as needed if the dressing is dirty, loose and at least the entire infusion set is replaced every 3 days.

In line with previous research by Andriani (2020) with very good infusion treatment and no phlebitis (0%), very good infusion therapy had phlebitis (0%), good infusion treatment without phlebitis 12 patients (40%) good infusion treatment 1 patient experienced

phlebitis. 6 patients (20.0%) received incomplete infusion treatment and had no phlebitis, 11 patients (37.0%) received complete infusion treatment and had phlebitis. From research data, patients who do not receive complete and poor infusion treatment have a risk of developing phlebitis (Andriani, 2020).

Conditions like this become a habit, often this habit has been passed down from generation to generation, which is not good for patients. Providing care is the nurse's primary duty to support patient health and promote appropriate care. The condition stated by the patient who was observed by the researcher from the first day to the third day was that the infusion was not changed and the infusion dressing was not changed and tried to ask questions to the patient who had had an infusion installed for 5 days. The patient said that the infusion was not treated or the dressing was changed and the entire infusion set was replaced. This is evidence that does not support the provision of good nursing care, because a nurse is required to be professional in carrying out actions in accordance with applicable procedures.

In line with Perry and Potter's theory, precautions must be taken when injecting to avoid complications such as other infections, changing the puncture site every 48 – 72 hours, and using a new infusion set to prevent phlebitis. This is supported by research by Hidayat Nurul and Sri Paryati (2012) with the title description of the implementation of infusion treatment procedures with the incidence of phlebitis at the Kajen District Hospital, Pekalongan Regency, where correct infusion treatment techniques according to the SOP can reduce the incidence of phlebitis.

Intravenous infusion care is the responsibility of the nurse who is required to know the solutions used and the principles of flow. Additionally patients should be examined for local and systemic complications. A solution is not flowing at the rate specified at the start of the setup. Therefore the IV line should be monitored at least hourly to ensure that the IV fluid is flowing at the prescribed rate. And the IV vial must be marked to know whether the infusion received is correct.

Researchers argue that IV treatment must be done properly. This means, if there is phlebitis, infiltration, blood clots, or a doctor's order, stop the injection and change the peripheral IV catheter sterility technique every day if it is dirty, damp, the bandage is loose, replace the entire IV infusion set every 3 days (48 - 72 hours).

Conclusion

Based on the findings that infusion treatment was not carried out because there was no SOP for infusion treatment at Ciamis District Hospital, the results obtained were 20 actions in accordance with the SOP and 22 actions not in accordance with the SOP.

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