



Case Study of Nursing Care in Patients with Pulmonary Tuberculosis at St. Anthony's Hospital

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Abstract: The World Health Organization (WHO) declares pulmonary TB as a very important and serious public health problem worldwide and is a disease that causes a global emergency because in some countries of the world, pulmonary TB disease is uncontrolled due to the large number of patients who are not successfully cured, as well as as the main cause of death caused by infectious diseases. the number of patients with pulmonary TB by 0.36% in West Kalimantan. According to the Pontianak City Health Profile in 2017, it was found that lung TB sufferers in 2016 in pontianak city as much as 64.28%, while in 2017 as much as 77.19%, based on this figure can be known to increase the percentage of pulmonary TB in 2017 compared to 2016. This study aims to find out the picture of nursing care in patients with respiratory system disorders, Pulmonary Tuberculosis (pulmonary TB). The research method used is the case study method. A case study is a study that explores a nursing problem in detail, has in-depth data retrieval and includes a variety of sources of information. The results of the study: after a study obtained the results that psien before illness is an active smoker, this is supported by Novita statement, smoking behavior can cause an increased risk of tb to 2 times. Problems are found ineffectiveness of breath patterns, activity intolerance, readiness to improve sleep.

Keywords: nursing, pulmonary tuberculosis, case studies



INTRODUCTION

Currently pulmonary tuberculosis (pulmonary TB) is the tenth largest health problem in the world. Pulmonary TB is the cause of death and the highest pain rate in developing countries (Rofi'i, 2019). In the last 20 years WHO with the countries involved in it strive to reduce pulmonary TB (Kemenkes RI, 2015). In 2018, Indonesia ranked 3rd accounting for two-thirds of the total cases of pulmonary TB in the world (WHO, Global Tuberculosis Report, 2019).

Based on Riskesdas (2018) showed an increase in the number of patients with pulmonary TB by 0.36% in West Kalimantan. According to the Pontianak City Health Profile in 2017, it was found that lung TB sufferers in 2016 in pontianak city as much as 64.28%, while in 2017 as much as 77.19%, based on this figure can be known to increase the percentage of pulmonary TB in 2017 compared to 2016. For the cure rate, namely (BTA lung TB (acid-resistant bacteria) + cured) in 2017 as much as 93.72%. Meanwhile, the death rate due to pulmonary TB in pontianak city during the period 2013-2017 showed an increased trend from 0.6 /100,000 residents in 2015 to 1.44 per 100,000 residents in 2017 (Dinkes Pontianak, 2017).

Pulmonary tuberculosis is caused by the bacterium mycobacterium tuberculosis entering the respiratory tract. Pulmonary TB is characterized by symptoms: consecutive coughs for up to 2 weeks more, fever, flu, night sweats, anorexia, weight loss, coughing up blood or phlegm, shortness of breath and chest pain (Padila, 2013). In addition, the condition of the home environment that does not meet health requirements is also the cause of pulmonary TB, including ventilation, lighting, residential density, home humidity, clean water household waste, garbage and the behavior of residents in the house (DinKes Pontianak, 2017). Cases of pulmonary TB in men are 1.4 times greater than in women, this is likely because men are more exposed to pulmonary TB risk factors such as smoking and lack of non-compliance with drugs.

According to the Indonesian Ministry of Health (2007), Mycobacterium tuberculosis is a rod-shaped bacterium and has a special property that is resistant to acids in coloring, therefore also called acid-resistant bacteria (BTA), in 1982, Robert Koch identified acid-resistant basil for the first time as the cause of pulmonary TB. Signs and symptoms that arise include, fever 40-41°C, and there is cough / cough bleeding, shortness of breath and chest pain, malaise, night sweats, and increased white blood cells (Herdman, 2015). Treatment in people with pulmonary tuberculosis in addition to curing / treating patients also prevents death, prevents recurrence or resistance to OAT and breaks the chain of transmission. In addition to medical management, nursing management is also carried out, including effective cough, deep breath and position arrangements (Mardiono, 2013).

METHODS

Case study research is an approach that learns about the unique events of a specific case. The method in the preparation of this case study is descriptive which is a form of case study in carrying out nursing care in a case by using the approach of the nursing process and describing the actions of nursing care given to families with elderly hypertension starting from assessment, nursing diagnosis, intervention, implementation and evaluation (Nursalam, 2015).



RESULT AND DISCUSSION

Mr. D's patient had Category III Tuberculosis, because the Thorax photo examination conducted on February 18, 2020 showed Bilateral Pneumonia dd TB, where the Category belongs to the infected katogori (Padila, 2013). In the case, the author did not find any sign that the patient had a phlegm and bleeding cough but found that the patient had a dry cough, from the results of the BTA 1 examination conducted on February 13, 2020, the results of the examination were declared negatif at the BTA 1 examination, the examination was not resumed because there was no material for examination. The patient did not have a high fever but from the results of laboratory examinations conducted on February 16, it was read that the results of the examination there was an increase in white blood in the patient's laboratory results. In Mr. D's own patients there are no signs and symptoms of complications from pulmonary TB infection. The patient's main complaint, the patient said shortness of breath, feeling tired and tired, pain and tightness when inhaling. No previous history of the disease was found, no hereditary diseases and physical disabilities and surgery. The patient said before the illness was an active smoker.

The first diagnosis is ineffectiveness of breathing patterns associated with hyperventilation. characterized by the patient saying shortness of breath, feeling tired and tired, pain and tightness when inhaling. Blood Pressure 100/60 mmHg, Nadi 106x/min, Breathing 28x/min, Temperature 36.8°C, SpO2 89%, respiratory type: chest, patient appears tight, attached 10 liters of NRM oxygen. According to Mc Canel (2010), in post-PULMONARY fibrosis the lungs leave lesions in the bronchi and trachea that cause obstruction disorders, as a result of this obstruction causes shortness of breath during expiration with the presence of additional sounds of breath, impaired ventilation perfusion and decreased FEV1 on the examination of lung function. The second diagnosis is an intolerance of respiratory distress-related activity, characterized by the patient appearing claustrophobic, attached to 10 liters of NRM oxygen and activity assisted by nurses and families. According to Puspita (2016) fatigue in pulmonary TB patients occurs due to the decrease in immunity and nutritional status in patients so that it becomes an obstacle to the lack of oxygen supply, therefore people with pulmonary TB are recommended not to do much activity and are recommended to rest (Aru, 2017). The third nursing diagnosis that was lifted was, the readiness to improve sleep was related to expressing interest in improving sleep, the patient revealed during his sleep pain was not good because of coughing. According to Muftiani (2012), patients with pulmonary TB experience poor sleep quality can be caused by lighting factors, activity, environment, and the effects of medication.

Nursing intervention is the provision of nursing care including actions that help clients physically and psychologically while still maintaining the dignity of the client (Hidayat & Ekaputri 2012). The application of the intervention is carried out during three days of treatment. In this case study, the interventions given are adjusting position, oxygen administration, effective coughing action, relaxation, and set a regular sleep schedule.

The implementation of nursing is given in accordance with the nursing plan that has been drawn up. Actions performed by administering oxygen, setting the client's position and coughing are effective when sputum is found. According to Mardiono (2013), the provision of oxygen therapy, the effective cough action helps the mobilization of secretions will prevent a high risk of secretion retention. Based on research conducted, the provision of semi-fowler position as one way to reduce shortness of breath (Aini, 2016). Next for the



diagnosis of activity intolerance related to respiratory disorders, the action given is to organize rooms and tools ergonomically, carrying out activities gradually. Budiarti research (2013) states that nursing actions taken to overcome activity intolerance show that there is an increase in the level of tolerance of clients from day to day. As for complaints of shortness of breath, and fatigue is reduced during and after doing activities, clients are able to participate in basic needs activities independently, clients are able to do activity exercises gradually according to the client's condition. The independent action of nurses in giving semi-fowler positions to patients who have respiratory system disorders can have an influence on normal respiratory frequency, there is an influence on the provision of semi-fowler positions on the stability of breathing patterns in pulmonary TB patients (Majompoh, 2013). The third diagnosis is the readiness to increase sleep related to expressing interest in improving sleep, the given actions identify sleep disrupting factors, environmental modification (lighting, noise), relieving stress before bed with relaxation, setting a regular sleep schedule, performing procedures to improve comfort (setting positions). The presence of complications and prolonged treatment has an impact on the appearance of anxiety or depression. Anxiety or depression caused has an impact on psychological responses, one of which is the need to sleep.

CONCLUSION

After conducting nursing care directly on Mr. D, it was concluded as follows: that the cause of Mr. D experiencing pulmonary tuberculosis is that Mr. D has a history of smoking. Research revealed by Nurjana (2015) that in men, pulmonary TB disease is higher than in women because of the habit of men who often smoke and consume alcoholic beverages that can lower the body's defense system. After being given the act of nursing care, it is hoped that Mr. D can overcome his complaints independently in accordance with the actions that the nurse has taught.

AUTHOR CONTRIBUTION

Hospital of Saint Anthony Pontianak and Dharma Insan Pontianak Nursing Academy

CONFLIC OF INTEREST

There is no conflict of interest in this case study.

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