



NURSING CARE FOR CHILDREN WITH BRONCHOPNEUMONIA DIAGNOSED IN FLAMBOYANT TREATMENT ROOM

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Abstract

Bronchopneumonia is a respiratory tract inflammation that occurs from the bronchi to the alveoli. Bronchopneumonia is more common in young children and infants and is usually caused by *Streptococcus pneumoniae* and *Haemophilus influenzae*. This study aims to determine the nursing care and appropriate intervention for patients with a diagnosis of bronchopneumonia. This research design is a case study with a nursing process approach. The research was conducted at the Flamboyant room 3A RSUD Batara Siang Pangkep in 2023. The method of this research is the approach of a nursing process consisting of the assessment, nursing diagnosis, planning, implementation, evaluation, and documentation. The evaluation with Bronchopneumonia were ineffective breathing patterns associated with depression of the respiratory center and inefficient breathing pathway cleanliness related to obstruction of the airway that occurred over three days as a whole. The conclusions obtained indicate the evolution of the patient's condition before and after the implementation. During the treatment, the family is expected to help in the healing process of the client by participating in the implementation of a nursing orphanage.

Keywords: Bronchopneumonia, Inflammation of the respiratory, Child Nursing Care

Abstrak

Bronkopneumonia merupakan peradangan pada saluran pernapasan yang terjadi mulai dari bronkus hingga alveoli. Penyakit ini lebih sering terjadi pada anak usia dini dan bayi, serta umumnya disebabkan oleh Streptococcus pneumoniae dan Haemophilus influenzae. Penelitian ini bertujuan untuk mengetahui asuhan keperawatan dan intervensi yang tepat pada pasien dengan diagnosis bronkopneumonia. Desain penelitian yang digunakan adalah studi kasus dengan pendekatan proses keperawatan. Penelitian dilaksanakan di Ruang Flamboyant 3A RSUD Batara Siang Pangkep pada tahun 2023. Metode penelitian menggunakan pendekatan proses keperawatan yang meliputi pengkajian, diagnosis keperawatan, perencanaan, implementasi, evaluasi, dan dokumentasi. Hasil evaluasi pada pasien dengan bronkopneumonia menunjukkan masalah pola napas tidak efektif yang berhubungan dengan depresi pusat pernapasan serta ketidakefektifan bersihan jalan napas yang berhubungan dengan adanya sumbatan pada jalan napas, yang terjadi selama tiga hari perawatan secara keseluruhan. Kesimpulan penelitian menunjukkan adanya perkembangan kondisi pasien sebelum dan sesudah dilakukan implementasi asuhan keperawatan. Selama masa perawatan, keluarga diharapkan dapat membantu proses penyembuhan klien dengan berpartisipasi aktif dalam pelaksanaan asuhan keperawatan.

Kata kunci: bronkopneumonia, peradangan saluran pernapasan, asuhan keperawatan anak

Introduction

Bronchopneumonia is an inflammation of the respiratory tract that occurs in the bronchi to the alveoli. Bronchopneumonia is more common in young children and infants, usually caused by the bacteria *Streptococcus pneumoniae* and *Hemofilus influenzae*. (Samuel, 2014). Bronchopneumonia is a leading cause of morbidity and mortality in children under the age of

9 to 5 (Aryani & Argarini, 2023). According to WHO data in 2020, bronchopneumonia contributed to the death toll of 808,000 children (15%) in 2017 (WHO, 2020). Based on Basic Health Research in 2018, it shows that the prevalence of bronchopulmonia in Indonesia has increased from 2013 by 1.6%) and has risen in 2018 to 2.0% (RISKESDAS, 2018). The most common disease infecting children is bronchopneumonia. In the world as well as in Indonesia, it is very massive because the inadequate efforts of the family are one of the factors in the treatment of bronchopneumonia. The findings of cases of children infected with bronchopneumonia can be fatal. The accumulation of sputum in the respiratory tract needs to be dealt with immediately because if it is late it can lead to shortness of breath, meningitis, respiratory failure, empiema, hypotension, delirium and death (Kemenkes RI, 2022).

Bronchopneumonia is an acute infection of the lower respiratory tract of the lung parenchyme involving a bronchial/bronchiolus patchy distribution caused by a variety of pathogens such as bacteria, viruses, fungi, and foreign objects. Bronchopneumonia can be found in infants and children under the age of 6. Bronchopneumonia is the highest cause of death in young people, outnumbered other diseases such as measles, malaria, and acquired immunodeficiency syndrome (AIDS) (Aisyah, 2021). Cigarette smoke contains a variety of harmful substances, including nicotine, tar, carbon monoxide, and carcinogens. Exposure to cigarette smoke in children aged 0-1 years can interfere with the growth and development of their respiratory tract. Children exposed to tobacco smoke have a higher risk of respiratory obstruction, reduced lung function, and respiratory infections, including bronchopneumonia (Palaguna, 2023).

Seeing this number of incidences, it is necessary to make health efforts including providing comprehensive nursing services using the nursery process approach (Kusuma, 2020). Application of nurseries processes for bronchopneumonia disease is expected to speed up the healing process and increase public knowledge in preventing the occurrence of bronchopulmonary disease. Nurses play an important role in carrying out bronchopneumonia in children in hospitals. This operation is carried out by a nurse through nursing orphanage.

Method

This research uses a descriptive method in the form of problem analysis with a comprehensive nursing care approach. The process of nursing care is consisting of 5 stages. Step I is collection and analysis of data, step II is formulating diagnosis of nursing care, step III is nursing intervention, step IV is nursing implementation, step V is evaluation. The method of data analysis used is based on subjective data and objective data. The study was conducted at Hospital Flamboyant Care Room at Batara Siang Pangkep on 20-23 February 2023. The subject of the study was a 1-year-old initialised "A" patient with a nursing diagnosis of ineffective breathing patterns and breathing pathways. Data is collected by interview, observation and documentation studies. The data-gathering instrument in this study uses the child-care orphanage format.

The study team strictly followed ethical standards in research and the ethics approval documents are available under No. No. 256/KEPK/FKIK/VII/2023 from the Health Research Ethics Commission (KEPK) FKIK UIN Alauddin. We sought approval from each participant and all individual information was kept strictly confidential.

Results

The nursing of the child "A" with bronchopneumonia was completed on February 20, 2023. The patient entered the nursing room on February 20, 2023 was brought by the family with the main complaints, namely, cough has been 3 days, squeezing (+), fever three days, data from the examination of the patient found nursery problems in the patient consisting of 3 Nursing diagnoses found are: ineffective breathing patterns related to depression of the respiratory center, inefficient breathing pathways related to obstruction of the airway and hypertermia related to the risk of causing infection. Nursing intervention plans for ineffective breathing patterns include monitoring frequency, depth rhythm and breathing effort, monitoring respiration pattern (such as takipnea), giving comfortable positions, giving oxygen, and collaboration with doctors in the administration of medication. To clean up the inefficient breathing pathway, intervention plan monitoring breath sound, performing mucus suction less than 1 second using suction, giving milk and drug intake through NGT. If necessary for diagnosis of hypertermia can be given intervention with monitoring the child's temperature to stable (36,5-37,5 °C), monitoring the skin color and temperature, increasing fluid and nutritional intake properly, stimulating warm compresses if necessary, as well as antipyretic administration.

Implementation of nursing care carried out on patients for 3 days of treatment from 21 to 23 February 2023 for nurses diagnosing ineffective respiratory patterns associated with central respiratory depression. Results obtained: The client's mother said the child was numb, the baby's breathing was abnormal (expression: 20x/i), the patient was given a

comfortable position or semi fowler, O₂ as much as 1-2 Lpm (oxygen attached) through the nasal canal, injection of dexamethasone 1 mg/IV/12 hours for diagnosis of ineffective nursing clean breathing associated with obstruction of the airway. Results: no extra breathing noise (wheezing decreased), NGT has been released, milk administration 30 ml/2 hours through NGT, nebulizer combivent 1/4 dose + NaCl 2,5 ml, for diagnosis of hyperthermia. The results were: normal body temperature, skin colour and normal and improved body temperature. IVFD has been removed, the patient has not been given a warm compress because he has no fever. Paracetamol injection 50 mg/IV/12 hours.

Discussions

The nursing care of the client's child "A" was treated at the flamboyant care room of the hospital with the main complaint of coughing for 3 days, sickness and fever. The analysis phase is carried out to determine the data to be concluded. In conducting the analysis, the data should be obtained from primary data and secondary data, but in performing the data analysis we obtain more on secondary information, that is, from the client family. It's because the client hasn't been able to speak. At the time of analysis of the data obtained in the form of subjective data, namely, the mother of the client said that the child had a sickle, there was a lot of sputum, the child has a fever with a body temperature of 38 ° C and there was the sound of "Wheezing". Bronchopneumonia is pneumonia that attacks one or more lung lobes characterized by stains caused by bacteria, viruses, fungi and foreign objects. One of the problems of bronchopneumonia is the ineffectiveness of clean breathing (Putri, 2019).

Diagnoses with bronchopneumonia are inefficient breathing, gas exchange disorders, nutritional deficits, growth disorder, and risk of electrolyte imbalance (PPNI, 2016). In the case of the "A" child client, the diagnosis was ineffective breathing patterns and it was associated with depression of the respiratory center, inefficient cleansing of the airways associated to mucous sputum, as well as hyperthermia that was linked to the risk of causing infection.

The intervention stage is the planning stage of the nursing process. Nursing Planning is a set of activities determining the measures of problem solving and its priorities, formulation of objectives, action plans and evaluation of nursing foster care in clients based on data analysis and diagnosis nurses (Sarina & Widiastuti, 2023). The results of Aryani & Argarini (2023) research on the analysis of nurse care through effective cough training interventions in clients "A" and "N" children with medical diagnosis of bronchopneumonia in Marine Hospital Cilandak and RSUD Rebo Jakarta market obtained cough care measures exercises that have been carried out for 3 days showed effective in customers "A" and children "N" there are significant changes before and after action with the results of the client being able to perform effective coughs exercise obtaining sputum, no additional breathing noise and respiratory frequency within normal range. Effective cough exercises aim to clean up respiratory secretions, increase lung expansion, mobilize secretions and prevent side effects of secretion retention such as pneumonia, atelectasis and fever. With effective cough exercises patients especially in children do not have to spend a lot of energy to remove secretions (Fauzi et al., 2019) At the implementation stage where this stage only addresses nursing problems namely nurses diagnosis Ineffective breathing is associated with depression of the respiratory center, ineffective cleansing of the breathing path related to mucous sputum, as well as hyperthermia is related to the risk of causing infection like monitoring the rhythm frequency, deeping of effort and breathing, monitoring breath patterns (such as takipnea), giving comfortable positions (*semi fowler*), monitoring additional breathing sounds, giving oxygen, performing sputum suction less than 15 seconds using suction, monitoring temperature, increasing fluid and nutritional intake.

Conclusion

Based on the description before and after the application of the nursing process to the client child "A", the results of the examination obtained the client has a case of bronchopneumonia. It is hoped that the health services will be able to improve the quality of nursing services. It is necessary to support the procurement of facilities in adequate rooms in providing nursing services. The family is also expected to keep an eye on the patient's condition, as well as to maintain the client's daily diet, so that it can meet the standards of nursing implementation that have been recommended in order to maintain client health condition.

References

- Aisyah, M.N. (2021). Nursing of a client with Bronchopneumonia at RSUD.Dr.Kanudjoso Djatiwibowo Balikpapan Year 2021. Nursing Journal, 3(2).

- Aryani, M., & Argarini, D. (2023). Analysis of Nursing Assistance through Effective Cough Training Interventions in An. A and An. N Clients with Medical Diagnosis of Bronchopneumonia at Cilandak Marine Hospital and Rebo Jakarta Market RSUD. *Journal of Creativity Commitment to the Society (PKM)*, 6(3).
- Fauzi, I., Nuraeni, A., & Solechan, A. (2019). Effective Cough Effects with Thoracic Physiotherapy Against Sputum Release At 3-5 Year-Old Balita With ISPA in Viral Puskesmas 1. *Journal of Nursing and Pregnancy (JIKK)*, 8(46), 1–9.
- Intan Widyasari Paramitha. (2020). Nursing a client of a child with bronchopneumonia treated in a hospital. *Kemenkes Samarinda Health Polytechnic*, 21(1).
- Kemenkes RI. (2022). Learn about bronchopneumonia in children and it's prevention. *Kemenkes RI Directorate General of Health Services*.
- Ministry of Health RI Research and Development Agency. (2018). *RISKESDAS 2018, Ministry Of Health. Basic Health Research*, 53(9).
- Kusuma. (2020). Nursing care for a client with bronchopneumonia. <Http://Repository.Bku.Ac.Id/Xmlui/Handle/123456789/888>, 1–65.
- Palaguna, S. (2023). Bronchopneumonia in zero-to-one-year-olds and cigarette smoke. *Ecosystem Scientific Journal*, 23(2).
- PPNI, T. P. S. D. (2016). *Standards of nursing diagnosis definitions and diagnostic indicators*.
- Putri, S. E. D. (2019). Nurse nursing a child with bronchopneumonia with inefficiency cleansing the respiratory tract at Dr. Harjono Ponorogo's hospital. In *Thesis (Issue 57)*.
- Sarina, D.D., & Widiastuti, S. (2023). Analysis of nursing foster care through clapping and postural drainage interventions with respiratory cleanliness problems is ineffective with the diagnosis of bronchopneumonia. *Journal of Creativity Commitment to the Society (PKM)*, 6(3).
- WHO. (2020). *World Health Organization*.