

Oxygenation Needs of the Bronchopneumonia Patient in the Pediatric Room at Parepare Hospital, Parepare City, Indonesia

Takko Podding, Muhammad Asikin, Abidin, Muhammad Nasir, Muhammad Nuralamsyah, Abd Rahman, Muhammad Saleng, Ike Nurjannah and Agussalim P*

Parepare School of Nursing, Makassar Health polytechnic, Jalan Laupe, Parepare City, South Sulawesi Indonesia.

*Corresponding Author

Agussalim, Parepare School of Nursing, Makassar Health polytechnic, Jalan Laupe, Parepare City, South Sulawesi Indonesia.

Submitted: 2023, Apr 16; Accepted: 2023, May 18; Published: 2023, May 27

Citation: Agussalim, P., Podding, I, T., Asikin, M., Nasir, M., Saleng, M. (2023). Oxygenation Needs of the Bronchopneumonia Patient in the Pediatric Room at Parepare Hospital, Parepare City, Indonesia. *Int J Clin Med Edu Res*, 2(5), 136-139.

Abstract

This is the state inflammation of the walls bronchioles and tissues surrounding lung. Bronchopneumonia can call as lobular pneumonia Because inflammation of the parenchyma of lungs characteristic localized to the bronchioles along with the alveoli around it. This study aims to know description about fulfillment need oxygenation of the patient child with case Bronchopneumonia at general hospital area of Andi Makkasau Hospital city parepare. The sample use sheet observation in children with case bronchopneumonia use method descriptive describing studies case with patient that is men and boys in the House Sick General area and makkasau city parepare, with amount sample 2 people. Research results for patient 1 compliance need oxygenation in bronchopneumonia patients is fulfilled whereas in patient 2 with fulfillment need oxygenation in bronchopneumonia patients is not fulfilled. The results of this study show patient and family patient expected knowing about fulfillment oxygenation in children with cases of bronchopneumonia and can maintain action care nursing that has given.

Keywords: Bronchopneumonia, Oxygenation, Care Nursing, Room Child.

1. Introduction

Health development is one integral part of development national have role big in determine success achievement objective development national. Conducted health development can increase quality source Power tagged human with level health increasing population. In development national, group child is group that doesn't can ignored, because group young This is successor future generations nation and state so need get attention and coaching as early as possible and implemented in a manner integrated and comprehensive good physical, mental, social and spiritual [1].

Service health in various facility health, start from facilities that have equipment with technology simple until that only have equipment with modern technology. Although has There is development in service facility health, however Still There is disease with number incident highest in death babies around the world. One of them is pneumonia which is reason main death in toddlers the year yet get development in good service and best facilities. With thereby child with lift incident bronchopneumcinia must granted action in fulfillment need oxygen therapy oxygen must give to the patient with hypoxaemia and disease lungs obstruction chronic with indication guess change frequency or pattern breath, change or

gas exchange, decrease Work breath like case signs and symptoms bronchopneumonia. Child with case bronchopneumonia treated at home average pain experienced reaction about pattern breath No effective So need will oxygen must fulfill. Oxegination is need base the most basic human. Existence oxygenation is one of gas components and vital elements in metabolic processes and for maintain continuity life whole cells body.

Based on data from WHO (World Health Organization) figures death toddlers in 2013 still _ tall reached 6.3 million souls. Death toddler highest happens in developing countries as much as 92% or 29,000 toddlers / day, Mortality toddler part big by disease infectious such as pneumonia (15%), diarrhea (9%), and (7%) (WHO, 2013). WHO estimates that in 2013, there were 935,000 children under five die due to pneumonia (WHO, 2014). Death toddler Because part big caused by severe pneumonia range between 7 % - 13% According to WHO (2014), pneumonia deaths in Indonesia in 2013 ranked 8th after India (174,000), Nigeria (121,000).

Pakistan (71 000), DRC (48 000), Ethiopia (35 000), China (33 000), Angola (26 000), and Indonesia (22 000) (digilib. unimus.

acid). Pneumonia is reason death the 2nd toddler in Indonesia after diarrhea in 2012 the incidence of pneumonia in Indonesia in infants estimated at 10% -20% per million with number 6 deaths per 1000 births live. Based on results Basic Health Research (Rikesdas) in 2013, shows that incident the highest toddler pneumonia 2 was in the group 12-23 months old. Prevalence national pneumoniae i.e., by 25% and happened enhancement prevalence of pneumonia in 2007 i.e., 11.2 %, in 2010 it was 17.5%, and in 2013 it was 18.5% [2].

And for year 2016 approx pneumoniae cases national by 3.55% however number estimation cases in each province use different numbers in accordance numbers that have set. For high cases of pneumonia located in the territory of the archipelago southeast west with estimation case as much as 6.38 96, in order second that is the Bangka Belitung Islands as much as 6.05%, then South Kalimantan as much as 5.53%, and the lowest namely in the Bengkulu region with estimation case 2.00%. In the South Sulawesi region Alone with estimation case as much as 3.79% (Ministry of Health RI, 2016). Data results from Parepare Health Office 2014 found case pneumoniae as much as 1.579% of cases from various group age.

2. Method

Method in drafting Work Write Scientific this, using method descriptive Where events that occurred depicted in a manner systematic and actual. As for who will described is How method fulfillment need oxygenation in care nursing child with patient bronchopneumonia in space nursing children of Andi Makkasan Hospital, City of Parepare. As for the subject from studies case This is patient child with fulfillment need oxygenation with case bronchopneumonia treated in the room nursing child Andi Makkasau Hospital, City of Parepare.

Focus study for get description pattern gift oxygen in bronchopneumonia patients, get description predisposition minimize fulfillment need oxygen in a manner independent, as well get description obstacles in gift oxygen to the patient bronchopneumonia. In drafting Work Write Scientific this, using method descriptive According to Notoatmodjo (2010) method descriptive that is fulfillment need oxygen administered to the patient Broncopneumonia, use support completeness Work Write Scientific this, using technique as following: Observation participation that is stage observation direct to patient for know circumstances patient and follow give Care Nursing For overcome problems faced by patients.

2.1 Secondary Data

A) Collecting literature studies materials and books books, training amount nursing nor other related sources with Bronchopneumonia
B) Studies documentation that is use medical records for obtain data and results examination, treatment program and therapy given as well as other relevant notes with writing Work Write Scientific Good this.

2.2 After done data collection with step data collected step, in

though in a manner systematically, analyzed, interpreted and presented in form narrative. In do studies case This will guard secrecy data source start from agreement respondent, name respondent, so respondent feel comfortable and free emit his opinion in a manner thorough.

3. Results and Discussion

Studies case This explain about fulfillment need oxygenate in disease broncopneumonia which was carried out on 2019 in the room maintenance children of Andi Makkasau Hospital Parepare with the number of 2 respondents i.e., on "R " entry House sick on July 1, 2019 with 5 years old, and patient "A" is admitted House sick on July 3 2019 with 6 months old. Patient "R" enter with complaint cough, tightness breath and restlessness when studied patient looked restless and installed O2 with TTV: pulse 92 times per minute and breathing 55 times per minute, temperature 36.6° C. Meanwhile in "A" enters with complaint fever, cough, chills congested breath. When studied patient looked restless and plugged O2, with TTV: pulse 98 beats per minute and breathing 57 beats per minute, temperature 37.8°C.

In results studies cases that have done on "R". research on "R" , namely: On patterns fulfillment oxygen in An "R" is obtained from results observation of patients that is patient using a nasal cannula into the hole nose , tube right in the hole nose , incompetence clean up secret independently , using muscle help breath additions , and rhythm irregular breathing , Predisposition For minimize fulfillment need oxygen in a manner independent on the "R" you get from results observation that is client more Lots take semi fowler's position , rather than exercise cough , exercise breath in , Barriers in fulfillment oxygen , which is obtained from results observation that is client experience constraint that is client restless , crying afraid and not comfortable installed O2. Case Second In results studies cases that have carried out on "A", research on "A" namely: On the pattern fulfillment oxygen in "A" is obtained from results observation of patients that is patient using a nasal cannula into the hole nose, tube right in the hole nose.

Inability clean up secret independently , using muscle help breath additions , and rhythm irregular breathing Predisposition For minimize fulfillment need oxygen in a manner independent on "A earned from results observation of patients that is client more a lot of lying in place sleep and no do activity whatever in fulfillment need oxygen , and resistance in fulfillment oxygen , which is obtained from results observation of patients that is client experience constraint that is client cry at the moment paired hose oxygen , afraid of the hose oxygen attached to the face client , and no comfortable installed

4. Discussion

In results studies case on "R" in pattern fulfillment oxygen in category not enough Good Because client No capable in clean up secrets independently, using muscle help breath additions, and rhythm irregular breath. Although patient use tool help breath like a nasal cannula plugged in nose. hose right in the hole parallel nose with theory explained by Herry and Potter, 2006, in Arif Bactiar

2010 about therapy oxygen is management oxygen addition to the patient for prevent or handle hypoxia. hypoxia is sutu condition Where No fulfilled oxygen for fulfil need metabolism tissue and cells.

As for needs oxygenation is need base man in fulfillment oxygen used for continuity metabolism cell body, defend life and activity various organs or cells. Fulfillment process oxygen there are two methods that can done For fulfil need oxygen in the affected patient disturbance breath that is , first gift oxygen with Genre low consisting _ from the nasal cannula , mask easy simple simple masks, singkop advance with pocket rebreathing , catch advance with kong non-reg Meanwhile for gift oxygen snort Genre purple yes with venture mask or cover advance with ventury dents flow about 2-15 liters/ minute And that is used in patients s performed observation that is use flow system method low with a clear nose with need The oxygen used in patient "R" is I liter/ minute With Follow the standard operational procdure at home sick.

In results studies case on R in Predisposition in minimize fulfillment need oxygen in a manner independent in category not enough good because client cannot exercise cough, exercise breath inside , drink warm water in a manner independent and without help maintenance or family client although client already taught about method the but client No can do matter such Klein only can do semi fowler's position and attitude relaxation in touch need oxygen there is a prodisposing factor in fulfillment oxygen namely (1) semi fowler position is position half sitting, where part head place Sleep more tall or raised . Position This done for maintain comfort and facilitate respiratory function patient (2) exercise cough is something banking method with right, where client can save energy so no easy tired and got emit sputum in m maximum although patient in cramped situation _ but client still must do exercise cough so you can out and not interfere with breathing. (3) in line with teon described by (smeltzer & bar. 2002) about exercise breath in is something form asuban nursing, deep matter This nurse teaches to client How method do nafs deep, slow nasal swallow inspiration in a manner max and how exhale breath in a manner slowly, for increase ventilation lung and increase oxygenation blood. (4) in line with theory explained by (Maidartati, 2014) about drink warm water aim for reduce viscosity sputum through an induction process that causes arteries in the area neck vasodilation and ease fluid in vessels blood can bound by a secret or mucus. (5) attitude relaxation is one method for.

So, for minimize in fulfillment oxygen patient must given a number of actions for minimize in fulfillment oxygen, one of the most important that is gift or recommendation in Semi-Fowler's position helps a lot in the fulfillment process need oxygen. in line with theory described by Doenges [3]. In implementation care nursing in children bronchopenumonia with problem nursing ineffectiveness cleaning airway no effective, action self that can done nurse covers do inspection knock, arrange position client with head elevation, teach and assist client for take a deep breath and cough effective, do chest physiotherapy, as well perform upper suction indication. In results studies case on R in Obstacle obstacle

in fulfillment oxygen is problems that arise during the fulfillment process need oxygen going on like child restless , crying , scared , reactive , and not comfortable in installation O2 Parallel with theory explained by Tarwoto & Wartonah about influencing factors need oxygenation and can bother in the fulfillment process oxygen that is Nutrition : for example in obesity resulted decline expansion lungs, poor nutrition to become anemic oxygen binding capacity reduced [4]. a diet high in fat causes atherosclerosis Exercise can increase need oxygen, Anxiety cause metabolism increase. Worry very influential in emergence problems with children using _ tool help breath of results study on obtained that patient "R" with Obstacle in fulfillment oxygen, deep category not enough Good Because during client cared for and given action fulfillment oxygen client experience constraint that is client moment paired hose oxygen, crying, fear, and no comfortable installed O2.

The body's metabolic processes Need oxygen in body hann fulfilled Because if need oxygen in tubids reduce so will happen network damage brain and when matter the will last long happen death System that plays a role in the fulfillment process need is system respiratory , nervous , and cardiovascular .Fulfillment process oxygen there are two methods that can done For fulfil need oxygen in the affected patient disturbance breath that is , first gift oxygen with Genre low consisting from the nasal cannula , mask easy simple (simple mask), mask advance with pocket rebreathing , mask advance with non- rebreathing bag Whereas uruk gift oxygen with Genre tall that is with venture mask or hood advance with venture with Genre about 2-15 liters a minute . And those used on patients' moment done observation that is use flow system method low with a nasal cannula with need oxygen used in the patient "A" is 0.5 liters/ minute. With Follow the operational standard procedure at home sick.

From the results studies case on "A" with Predisposition For minimize fulfillment need oxygen in a manner independent in category not enough well, where during treated client more a lot of lying in place sleep and no do activity whatever in fulfillment need oxygen like exercise cough. exercise breath deep, semi fowler position, drink warm water, attitude relax Whereas for minimize in selection oxygen with help breath patient expected can do activities that can reduce activity help breath the In line with theory described by Doenges in implementation care nursing in children bronchopenumonia with problem nursing ineffectiveness cleaning airway no effective. action self that can done nurse covers do inspection physical, set position client with head elevation, teach and assist client for take a deep breath and cough effective, do chest physiotherapy, as well perform upper suction indication.

From the results studies case "A" with Obstacle in fulfillment oxygen, deep category not enough Good Because during client cared for and given action fulfillment oxygen client cry Because hose oxygen installed in the hole nose patient, fear, and feel No comfortable moment installed hose oxygen. In line with theory explained by Tarwoto & Wartonah about influencing factors need oxygenation and can bother in the fulfillment process oxygen that is Nutrition: for example, in obesity resulted decline expansion

lungs, poor nutrition to become anemic oxygen binding capacity reduced. which is high in fat raises atherosclerosis. Exercise can increase need oxygen, Anxiety because metabolism increase Worry very influential in emergence problems with children using _ tool help breath Because child usually tantrums, restlessness, crying and disturbed at intervals oxygen, and feel No comfortable in installation hose oxygen.

Based on results study on can assumed that fulfillment need oxygenation patient "R" less Good can seen in facet pattern fulfillment need oxygenation, predisposition For minimize fulfillment need oxygenation in a manner less independent well, obstacles obstacles in fulfillment need oxygenation of things This caused Because patient feel exists interference with compliance need oxygenation while being treated at home Sick Because patient feel No comfortable moAcknoment installation hose oxygen and patient often feel anxious, scared, and crying Because hose attached oxygen [5-16].

Acknowledment

We would like to thanks to the Ministry of Health of Indonesian Republic, The General Director of Human Reshourches Ministry of Health Indonesian Republic, The Director and Vice Director of Makassar Health Polytechnic, also the management of the Parepare Hospital.

Funding

There is no funding in this research.

Conflict of interest

There is no conflict of interest in this research.

References

1. Danusantoso , H (2014) Im Assembling Par Jakarta EGC MOH RI 2010 Indonesia Health Profile Jakarta.
2. Indonesia Ministry of Health 2013 Results of Riskedas 2014-Ministry of Health of the Republic of Indonesia.
3. Doenges, ME 2000 Plan Andan Nursing Guidelines for Planning and Documentation Maintenance Patient , Issue 3 Jakarta EGC.
4. Tarwoto and Wartonah (2006) Mamia's Basic Needs and Nursing Process, Edition 3 Jakarta Salemba Medika.
5. Asmadi (2008), Basic Concepts of Nursing, Jakarta EGC.
6. Bare & Smeltzer 2002. Nursing Textbook medical Brunner & Suddar Surgery (Trans language of the Great Waluyn) Edes 8 vol.3. Jakarta EOC.
7. Bilotta Kimberly, 2012 Kapia Select Disease with Implications Nursing , Jakarta. Publisher Book EGC Medicine.
8. Bulechek , G, & et al . (2015) Nursing Interventions Classification (NIC) FL6, Jakarta: Elsevier.
9. La Unga, R., & Sakundarno, M. (2019). Description of the Prevalence of Hypertension in Ambon Port Health Office:(Case Study of Clinical Data in Ambon KKP Work Area in 2016). STRADA Jurnal Ilmiah Kesehatan, 8(2), 89-96.
10. Dinke , 2015. Profile health province <http://tinkesulsel.files.wordpress.com> accessed April 15, 2019 , 2015.
11. Maidartati (2014) Influence Chest Physiotherapy Against Airway Clearance in Children Aged 1-5 Years Experiencing _ Disturbance Airway Clearance _ No Effective Din Health Center Moch . Ramdhan Bandung Journal health , 106.
12. Muhlisin , A. (2017), Bronchopneumonia : Symptoms , Causes Treatment Retrieved January 23. 2018, from the Medix Editorial Team.
13. <https://msdiskus.com-renkopneumonia> accessed 15.appl 201.
14. NANDA International . (2015) Nursing Diagnosis Definition disease bronchopneumonia Jakarta EGC.
15. Notoatmodjo , S. (2010) Methodology study health Jakarta Rineka Create Nursalam (2013) Methodology Study Knowledge Nursing Approach Practical.
16. Jakarta Salemba Medic Setyanto , BD Supriyanto , & Bambang (2010). Textbook of Children's Respir ology Jakarta Books IDAL Publisher.

Copyright: © 2023 Agussalim, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.