



Emergency airway breathing with optimization of oxygen fulfillment in bronchial asthma patients

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Abstract

This study investigated emergency airway breathing with the optimization of oxygen fulfillment in bronchial asthma patients. It was done at TK. II Moh. Ridwan Meuraksa Hospital. The research design used was case qualitative with a case study design. The sample was two patients using the nursing care process, collaborative action of administering nasal cannula oxygen 3 liters/minute, and nebulizer therapy. Nursing self-paced measures by monitoring breathing frequency, patterns, and oxygen saturation, providing semi-fowler positions, teaching effective cough techniques, and providing warm water drinking. Independent nursing actions to overcome patient anxiety provide psychological support by listening attentively, teaching relaxation techniques, and continually encouraging families to support and accompany patients in the emergency room. Shortness of breath in both patients is reduced, sputum can be excreted with a diluted white consistency, breathing frequency improves, and oxygen saturation increases. Patient 1 respiratory frequency is 24 x / min, and oxygen saturation is 99%. Patient two respiratory frequency is 22 x / min, and oxygen saturation is 98%. The use of respiratory muscles decreases, and the patient appears more relaxed. The importance of the role of nurses in emergency installations in providing fast, swift, responsive services to overcome airway and breathing problems with oxygen fulfillment measures in Bronchial Asthma patients. In implementing nursing care, nurses need to be caring to overcome the anxiety experienced by patients and families.

Keywords: emergency, airway, breathing, bronchial asthma, oxygen, caring

Introduction

The Emergency Room (ER) is a part of hospital services that provides first aid for every sick patient who requires emergency treatment ^[1]. The Emergency Room aims to receive patients, conduct triage, and provide services for every patient who needs resuscitation and certain emergency patients ^[2].

Emergency nursing is a series of nursing care by competent nurses in the emergency room. Nursing care is given in various age ranges for patients in conditions threatening the safety and life of patients who require fast, swift, and appropriate action. Nursing care includes the patient's biological, psychological, and social needs. In emergency nursing, the importance of the accuracy of the actions given for handling patient safety ^[3].

There is a term in emergency nursing, triage, which is used to classify patients based on the severity of the injury and determine the type of treatment based on the emergency level of trauma, illness, and injury ^[4]. Triage is a process for sorting patients or classifying patients based on their level of emergency to determine nursing actions to be carried out by medical personnel in the emergency room.

Emergency treatment has the principle of "Do Not Further Harm," which means not aggravating the patient's condition. In these conditions, the patient can lose his life in just a few minutes. Assessment in an emergency with the Primary Survey (Initial Assessment) is the foremost step to defending victims experiencing life-threatening conditions ^[5]. The primary survey examination is based on Airway standards, Breathing, Circulation, Disability, and Exposure. The secondary survey is a follow-up action from the primary survey, which is a further overall examination from head to toe or head to toe ^[6,7]

Bronchial asthma is an airway obstruction that is reversible or can be returned, characterized by intermittent bronchial

attacks caused by allergic stimuli. Bronchial asthma is an inflammation of the lungs that causes the narrowing of the airways so that the expulsion of air from the lungs is obstructed. Likewise, the air exhaled into the lungs causes recurrent episodic symptoms ^[8]. Bronchial asthma is a disease with characteristic symptoms of shortness of breath and wheezing or wheezing breath sounds, where the frequency and severity of each person are different ^[9]. Bronchial asthma is a disease often found in society in almost all countries in the world, both for children to adults, with mild degrees, and even life-threatening for sufferers. Bronchial asthma can affect age groups ranging from children to adults due to factors that influence the occurrence of bronchial asthma, including allergies, genetic factors, and the environment ^[10, 11].

Clinical manifestations of bronchial asthma are shortness of breath (dyspnea), cough accompanied by sputum, and the appearance of wheezing, or known as wheezing, which causes the frequency of breathing to increase so that the body requires adequate oxygen supply. According to Abraham Maslow's Hierarchy of basic human needs theory, there are five basic human needs, the main of which is physiological needs, namely oxygen. Oxygen is the main requirement for every human being to breathe. Suppose there are obstacles in distributing oxygen to the human body, thereby reducing the flow of oxygen or being unable to flow to several body organs. In that case, inevitable failures will occur when working several tissues or organs of the body ^[12].

According to the World Health Organization (WHO), the 2018 Ministry of Health shows that the prevalence of bronchial asthma has continued to increase in the last thirty years, especially in developed countries. In 2016 as many as 300 people worldwide had bronchial asthma from various age groups and races. In 2017 it increased to 350 people,

and in 2018 the prevalence of bronchial asthma increased to 420 people. The prevalence of bronchial asthma has increased in all countries, and an estimated 250,000 people have died from asthma [13; 14].

The prevalence of bronchial asthma in Southeast Asia is around 3.3%, and lifestyle changes are suspected to influence the increase in the prevalence of bronchial asthma in the Southeast Asian region. According to data from the World Health Organization (WHO), Indonesia ranks 5th for deaths due to bronchial asthma among Asian countries and ranks 13th worldwide. The national prevalence of bronchial asthma in Indonesia at all ages in 2018 shows the prevalence of bronchial asthma reaching 2.4% [15]. There was an increase in the prevalence of 0.5% compared to the results of the RISKESDAS report in 2007 [16]. The highest prevalence of bronchial asthma in Indonesia is DI Yogyakarta (4.5%), followed by East Kalimantan (4.0%) and Bali (3.9%), the prevalence of bronchial asthma in DKI Jakarta (2.6%) or around 272 thousand people out of 10.47 million people [17].

Bronchial asthma is a disease that requires treatment both in the hospital and at home. As a result, if bronchial asthma is not handled correctly, it will cause other complications such as pneumothorax, respiratory failure, and bronchitis. In the emergency department of bronchial asthma, the patient's primary airway survey has a sputum build-up so that the airway is obstructed and breathing (breathing) with a respiration rate (RR) above normal. The nursing problem was ineffective airway clearance related to retained secretions by administering oxygen, chest physiotherapy, and suctioning of mucus if needed [18].

The fulfillment of oxygen is significant for humans to improve their quality of life. In everyday life, humans only breathe oxygen in small enough quantities and only enough to meet basic needs. The importance of meeting the needs of oxygenation to meet the needs of oxygen in patients with bronchial asthma to overcome shortness of breath in patients. Stopping breathing for 2-3 minutes in humans can cause fatal death. An appropriate and efficient response time is needed from when the patient comes to the emergency room until treatment is carried out [19].

The triage process is carried out on bronchial asthma patients by assessing whether the patient has mild, moderate, or severe symptoms. The triage process is to conduct a primary survey or initial assessment by assessing whether there are problems with the airway, including the airway, obstruction or obstruction in the airway, and additional breath sounds. Whereas in breathing, by looking at chest movements, breathing rhythm, regular or not breathing patterns, and dyspnea. The patient is in red triage or priority one (P1) if there is interference with the ABC (airway, breathing, circulation) or priority two (P2) [20].

Patients with bronchial asthma should be treated immediately when shortness of breath or dyspnea is accompanied by additional wheezing. It is essential to pay attention to respiratory rate (RR) and oxygen saturation in patients with bronchial asthma [21]. Management of patients by knowing in advance whether the attacks are mild, moderate, or severe and then assessing the triggering factors that aggravate the attack on Bronchial Asthma. The triage process is continued by giving the initial action by giving a semi-fowler or fowler position aimed at increasing lung expansion so that shortness of breath is reduced and optimizing the fulfillment of oxygenation needs to meet

oxygen needs in patients with bronchial asthma. Pharmacological management by administering inhaled bronchodilators (β_2 agonists) and oral glucocorticoid therapy (0.5-1 mg/kg). In severe cases, additional therapy with intravenous magnesium and high-dose inhaled corticosteroids may be given [22].

The provision of oxygen fulfillment for bronchial asthma patients aims to meet oxygen needs and maintain oxygen saturation within the normal range of $> 95\%$. Oxygen is given using a nasal cannula or simple mask. In this case, if there are limited saturation monitoring tools, oxygen administration must still be carried out [23]. In addition to providing oxygen, nebulizer therapy, and chest physiotherapy can be performed to free the airway.

The results of research conducted by Riscawati & Annisa [24] in the management of bronchial asthma patients in the emergency department of nursing problems with ineffective airway clearance showed the success of giving semi-Fowler's position for 15 minutes and giving nasal cannula oxygen with 3 liters/minute is effective with decreased shortness of breath, decreased wheezing, normal RR (16-20 x/minute), and oxygen saturation $> 95\%$ so that the airway becomes effective.

The nurse's role as a health care provider is to provide nursing care, where the nurse has a full role in fulfilling basic needs by providing nursing services using the nursing process. Nurses also act as educators, and nurses help patients and families by providing health information to increase health knowledge to promote better health behavior. In this case, the nurse also has a role as a collaborator with a team of other medical personnel to work together to provide supportive treatment for the patient's condition. As a coordinator, nurses direct the health team in providing health services to patients and nurses as advocates who assist patients and their families in obtaining rights and making decisions about health services. In this case study, the authors apply the nurse role as a nursing caregiver or caregiver who provides full service in meeting patient needs by providing psychological support for patients to control anxiety and emotions that can trigger bronchial asthma attacks.

The importance of applying Christian values in the Indonesian Christian University environment for every Civitas and even for other health service providers, namely the value of humility where every nurse must have a humble attitude because it can create an atmosphere that makes patients feel comfortable. The value of sharing and caring (sharing and caring) with an attitude of sharing and caring in providing services can help heal patients with care starting from small things. The value of discipline (discipline) can show a responsible attitude towards oneself with self-discipline. Professional value (professional) owned by a nurse indicates that he has a professional level so that patients can trust nurses. The value of responsibility (responsibility) shows an attitude that can be responsible for creating a relationship of mutual trust, and the value of integrity (integrity) is significant to show the self-integrity of a nurse. In managed case studies, the authors apply Christian values, namely sharing and caring in the nursing care process for bronchial asthma patients by sharing and caring for patients can create a relationship of mutual trust because patients feel comfortable and cared for by nurses.

Applying Christian values within the Indonesian Christian University (humble, sharing and caring, disciplined,

professional, responsible, and with integrity) can create services that help the patient's healing process. A caring attitude is essential for nurses as health service providers with concern for patients. Caring attitudes can have a positive impact by creating a comfortable atmosphere and increasing self-confidence by providing care [25], such as giving touch, providing psychological support, and supporting physical needs to help the healing process of Bronchial Asthma patients. One of the causes of intrinsic bronchial asthma is emotion, and psychological support is needed for patients to provide peace to patients, besides that spiritual support can be given by nurses by helping pray for patients if they have the same religion and providing health education to the patient's family to prevent bronchial asthma attacks.

The author believes in implementing the provision of nursing care to patients and families in what is written in the Bible, Proverbs 23:18, "For the future exists, and hope will not be lost," which is a guideline for daily life for the writer in the hope of providing the best service to help the healing process patient in meeting the patient's needs in the form of physiological, psychological and spiritual.

Based on cases found in the emergency room in patients with bronchial asthma, patients complain of shortness of breath, coughing up phlegm, wheezing or wheezing breath sounds, and irregular breathing patterns. Attacks occur most often in the morning and at night. A history of the disease and psychological factors, including emotions and anxiety-triggering attacks in patients with bronchial asthma, can cause the occurrence of relapses in patients with bronchial asthma. Besides meeting physical needs and providing psychological support, the critical role of caring nurses is controlling the emotions and stress of patients and the patient's families to avoid recurrence in patients with bronchial asthma.

Based on the background above, the authors describe a case study titled "Airway Emergency and Breathing with Optimization of Oxygen Fulfillment in Bronchial Asthma Patients at the Emergency Room of TK.II Hospital Moh. Ridwan Meuraksa Jakarta." From this background, the authors formulate the problem: how to manage emergency airway breathing by optimizing oxygen fulfillment in Bronchial Asthma patients in the Emergency Room at TK.II Moh. Ridwan Meuraksa Jakarta. The aim of the study, namely to determine the management of emergency airway breathing by optimizing oxygen fulfillment in Bronchial

Asthma patients at the Emergency Room of TK.II Moh Hospital. Ridwan Meuraksa Jakarta.

Research Method

The case study design in this scientific paper was carried out using a case study approach that aims to provide an overview of airway and breathing emergencies by optimizing oxygen fulfillment in bronchial asthma patients. This scientific paper's case study research design was carried out using a series of emergency nursing care processes starting from primary and secondary surveys. It is carried out starting with an assessment to collect data, followed by determining nursing diagnoses, making a nursing action plan following the primary survey (airway and breathing), and implementing emergency nursing actions to evaluate emergency nursing. The subject of the case study in this scientific paper is two patients. Instruments in this study were emergency nursing-care assessment sheets, blood pressure measurement tools or vital signs (sphygmomanometer, stethoscope, thermometer, and oxygen saturation), tools for oxygen requirements (nasal cannula, simple mask, rebreathing mask, and non-rebreathing mask) according to patient needs, nebulizer therapy equipment, and informed consent. The method of collecting data for scientific writing is by using the observation method, namely observing or paying attention to the phenomena being observed by the author. The research was conducted in TK. II Moh. Ridwan Meuraksa Hospital is located on the Taman Mini I Pinang Ranti highway, East Jakarta. When this research was carried out from May to June 2022, it was carried out individually with observations from the first time the patient entered the emergency room until he was transferred to an inpatient room, another room, and until the patient was declared discharged. Data analysis is presented in a factual or accurate narrative form. Interpretation is part of data processing to conclude from the results of factual analysis.

Result and Discussion

The results of case studies in the study material collection were obtained through observation, physical examination, direct interviews with patients and their families, and reviewing medical records and nursing notes. Patients 1 and 2 begin with examining the patient's identity in the form of the name, gender, age, religion, marital status, education, occupation, and sources of information.

Table 1: Identity of Patients 1 and 2

Patient identity	Patient 1	Patient 2
No. Medical records	41.38.76	43.10.64
Medical diagnosis	Acute exacerbation of bronchial asthma	Acute exacerbation of bronchial asthma and dyspepsia
Name	Mrs. N	Mrs. Y
Gender	Woman	Woman
Age	36 years old	40 years old
Religion	Islam	Islam
Marital status	Married	Married
Education	SMK	SMA
Triage	Priority 2	Priority 2
Main complaint	Hard to breathe	Hard to breathe
Chronology of Complaints	The patient came to the ER with complaints of shortness of breath since the morning of SMRS (Before Admission to the Hospital), accompanied by a cough with thick, white phlegm that was difficult to expel, a runny nose, the patient was anxious and afraid because of sudden shortness of breath. Finally, the patient's	The patient came to the ER with complaints of shortness of breath since one day of SMRS (Before Hospital Admission). The patient complains of shortness of breath accompanied by a cough with thick white phlegm, which can sometimes be

	husband took him to the ER RS TK.II Moh. Ridwan Meuraksa.	expelled.
Orientation	Good, the patient can state where he is currently located and identify and know the nurse and family.	Good, the patient can state where he is currently located, identify, and know the nurse and family.
Past Medical History	Asthma	Asthma and Dyspepsia

Based on the patient's condition, it can be concluded that he is in the non-emergency category or Priority 2/Yellow, which is a life-threatening condition but does not require emergency action, or there is still time for treatment the action is carried out in less than 30 minutes.

The primary survey or primary assessment is an initial assessment to identify problems that threaten the patient's life and can prioritize the focus of care. The primary assessment includes the ABCDEs, namely Airway, Breathing, Circulation, Disability, and Exposure ^[26].

Table 2: Assessment of the Primary Survey

	Patient 1	Patient 2
Airway	The patient's airway is not patent, and there is an airway obstruction, a gurgling sound with thick, white consistency sputum that is retained and challenging to expel. In patient 1, it can be concluded that the airway is unclear.	The patient's airway is not patent; there is an airway obstruction with a gurgling sound with thick, white sputum consistency. When examining the sputum, it is difficult to remove it. In patient 2, it can be concluded that the airway is unclear.
Breathing	Symmetrical chest movement with fast and shallow breathing rhythm, irregular breathing patterns, chest retraction, use of accessory muscles to breathe and experiencing shortness of breath with a respiratory rate of 28 x/minute, additional wheezing (+) breath sounds and rhonchi, shortness of breath felt since morning day 16 hours SMRS, and 93% oxygen saturation. In patient 1, it can be concluded that breathing is not clear.	Symmetrical chest movements, fast and shallow breathing rhythm, irregular breathing patterns, chest retraction, shortness of breath with a respiratory rate of 26 x/minute, additional wheezing (+) and crackles, shortness of breath felt since one day of SMRS, and saturation oxygen 92%. In patient 2, it can be concluded that breathing is not clear.
Circulation	The patient's pulse was palpable, with no cyanosis, CRT (Capillary Refill Time) < 2 seconds, no bleeding, elastic skin turgor, no other complaints, BP 127/91 mmHg, and pulse rate 98 x/minute. In patient one, circulation is clear.	The patient's pulse is palpable, and there are no signs of cyanosis, CRT (Capillary Refill Time) < 2 seconds, and no bleeding. Other complaints are pain in the pit of the stomach with a pain scale of 5, like being stabbed with a duration of + 5 minutes, BP 124/109 mm Hg, and pulse rate of 136 x/min. With elastic skin turgor and pale skin color, the patient looks grimacing in pain. In patient 2, it can be concluded that the circulation is not clear.
Disability	The patient's response is alert, with Compositentis awareness, isochor pupillary reaction, light reflex +/+, and no other complaints. In patient 1, it can be concluded that the disability is apparent.	The patient's response is alert, with Compositentis awareness, isochor pupillary reaction, light reflex +/+, and no other complaints. In patient 2, it can be concluded that the disability is apparent.
Exposure	Physical examination on exposure did not reveal deformities, contusions, abrasions, signs of penetration, lacerations, edema, and other complaints. In patient 1, it can be concluded that the exposure is apparent.	Physical examination on exposure did not reveal deformities, contusions, abrasions, signs of penetration, lacerations, edema, and other complaints. In patient two, it can be concluded that the exposure is apparent.

Table 3: Assessment of the Secondary Survey "Anamnesa"

	Patient 1	Patient 2
Current medical history	The patient is worried and afraid of his current situation	The patient is worried about his illness and complains of abdominal pain
Allergy	The patient had no history of food and drug allergies.	The patient has no allergies to food or drugs and is allergic to cold weather.
Medication	Salbutamol 4 mg	Teosal 130 mg
Past medical history	Asthma	Asthma and Dyspepsia
Last meal and drink	At 20.00 WIB The patient eats rice and side dishes along with water.	17.00 WIB. The patient eats rice and side dishes along with water
Causing event	It occurs suddenly in the morning when the patient is active at home	Occurs suddenly at night when the patient is at home
Vital sign	BP 127/91 mmHg, pulse 98 x/minute, temperature 36.6°C, respiratory rate 28 x/minute, and oxygen saturation 93%.	BP 124/109 mmHg, pulse rate 136 x/minute, temperature 36.4°C, respiratory rate 26 x/minute, and oxygen saturation 92%

Table 4: Assessment of the "Head to Toe" Secondary Survey

	Patient 1	Patient 2
Head and neck	Inspection: Symmetrical head shape, clean scalp, no inflammation, tumors, or scars, black hair spread evenly. Palpation: No lumps, bone crepitations in the head, or distended jugular veins in the neck.	Inspection: Symmetrical head shape, clean scalp, no inflammation, tumors, or scars, black hair spread evenly. Palpation: No lumps, bone crepitations in the head, or distended jugular veins in the neck.
Chest	Inspection: The movement of the chest is symmetrical, and there are no wounds on the skin. Palpation: No tenderness; vocal fremitus felt the same in	Inspection: The movement of the chest is symmetrical, and there are no wounds on the skin. Palpation: No tenderness; vocal fremitus felt the same in

	both lung fields. Percussion: Resonant sound over both lung fields. Auscultation: There are additional wheezing (+) breath sounds and crackles.	both lung fields. Percussion: Resonant sound over both lung fields. Auscultation: There are additional wheezing (+) breath sounds and crackles.
Abdomen	Inspection: Abdominal shape symmetrical, no ascites and wounds. Palpation: No tenderness; the stomach is not bloated. Percussion: Tympanic sound in the abdominal quadrants. Auscultation: Bowel sounds 8 x/minute.	Inspection: Abdominal shape symmetrical, no ascites and wounds. Palpation: Tenderness in the stomach with a pain scale of 5; the stomach is not bloated. Percussion: Tympanic sound in the abdominal quadrants. Auscultation: Bowel sounds 10 x/minute.
Pelvis	Inspection: There is no cyanosis or swelling. Palpation: No pelvic pain.	Inspection: There is no cyanosis or swelling. Palpation: No pelvic pain.
Upper or lower extremities	Inspection: No rash on the skin and abnormalities in the upper and lower extremities. Palpation: Acral feels warm, skin turgor is elastic, left and right hands can be moved well, no abnormality.	Inspection: No rash on the skin or abnormalities of the upper and lower extremities. Palpation: Acral feels warm, skin turgor is elastic, left and right hands can be moved well, no abnormality.
Back	Inspection: The shape of the back is symmetrical. Palpation: There is no abnormality in the back and no pain.	Inspection: The shape of the back symmetrical Palpation: There is no abnormality in the back and no pain.
Neurological	On physical examination, the cranial nerves are functioning correctly.	On physical examination, the cranial nerves are functioning correctly.

According to the theory of diagnostic examinations, to support the diagnosis, there are several examinations, namely: Thorax photo examination, Lung function test which aims to determine the cause of dyspnea, examination of peak expiratory currents with a peak flow rate meter, Reversibility test, Bronchial provocation test, aims to

determine bronchial hyperactivity, Allergy test (skin prick test) aims to determine the presence or absence of allergies. In cases where there is a difference in the theory, only laboratory tests are carried out for diagnostic examinations. A chest photo plan is to shorten the time and prioritize providing action to patients.

Table 5: “Laboratory” Diagnostic Examination

Inspection	Patient 1	Patient 2	Reference Value
Covid-19 antigen swabs	Negative	Negative	Negative
Hematology			
Hemoglobin	12,7 g/dl	13,1 g/dl	13,2-17,3 g/dl
Leukocytes	14,7 thousand/uL	14 thousand /uL	3,8-10,6 thousand /uL
Hematocrit	36 %	38 %	40-52 %
Platelets	189 thousand /uL	386 thousand /UI	150-440 thousand /uL

A nursing diagnosis is a statement of a patient's problem based on the data obtained, an illustration for prioritizing nursing care problems based on responses, responses, and influences of nursing care. Nursing intervention is a nursing action plan to address patient problems following nursing diagnoses to achieve the goals and expected outcome criteria. Implementation of nursing is the implementation of nursing actions that have been planned and determined to fulfill the patient's needs optimally. Nursing evaluation is a process of assessing the success of a nursing action by assessing subjective, objective, assessment, and planning responses.

The author collects past and present medical history data through the assessment of emergency nursing care obtained by observation, interview, and physical examination methods on both patients in the emergency room of TK.II Moh Hospital. Ridwan Meuraksa Jakarta. Managing patients for case studies in emergency departments is still during the Covid-19 pandemic, so health workers and writers use level 2 Personal Protective Equipment (PPE).

The data results were inpatient one on Apr 27, 2022, with the initials Mrs. N, female sex, 36 years old, Islamic religion, married status, last education at SMK, housewife's occupation, and medical diagnosis of acute exacerbation of bronchial asthma. Patient data 2, dated May 11, 2022, with the initials Mrs. Y, female gender, 40 years old, Islamic religion, married status, last high school education, housewife work, medical diagnosis of acute exacerbation of bronchial asthma and dyspepsia. In the identity of patients 1

and 2, there is a four-year age difference with the same sex, namely women. Patient 1 had a history of asthma four months ago, while patient 2 had a history of asthma and gastritis since high school at the age of 19 years. Based on what was disclosed, patient one experienced complaints of shortness of breath accompanied by coughing up phlegm which held back an attack in the morning. Also, the last recurrence four months ago was resolved by taking medication. Whereas in patient 2, the last recurrence occurred a week ago, then recurred at night before entering the hospital, and she had taken the drug Teosal 130 mg, but there was no change. The psychological factor of anxiety results in increased heart work, so the body's need for oxygen increases and triggers shortness of breath. There were no differences in general signs and symptoms between the two patients. It is just that there were triggering factors in patient 2, namely heartburn due to increased stomach acid and cold allergy factors. The authors concluded that both patients were in the late adult age category. The assessment data found general signs and symptoms that did not differ between theory and cases. It is just that there were triggering factors in patient 2. There were no inhibiting factors when assessing because patients and families were cooperative in providing information regarding the patient's medical history.

The triage assessment was carried out by assessing the level of emergency. In the second case, the patient was categorized as a non-emergency triage/P2. Namely, the patient's condition is life-threatening. However, it does not

require emergency treatment, or there is still time for treatment. In this case, the author determines triage with a response time or response time for patients in less than 5 minutes with a period of 5-10 minutes. In the case of treatment started within 30-60 minutes. For both patients, the triage process between theory and cases has similarities. The primary survey assessment of patient 1's airway assessment was the presence of airway incompetence. There was airway obstruction due to thick white sputum and difficulty in expelling. When the patient spoke, he was short of breath due to shortness of breath. In patient 2, the airway assessment was different from patient 1. Namely, patient two can spit out the sputum. The author obtained the same complaints in both patients, so it can be concluded that the airway is unclear. The author conducted an assessment of breathing; the results obtained in patient 1 were shortness of breath with symmetrical chest movements, fast and shallow breathing rhythms, irregular breathing patterns, use of accessory muscles to breathe with a respiratory rate of 28 x/minute, accompanied by additional wheezing (+) breath sounds and crackles, and 93% oxygen saturation. The two patients had in common, namely shortness of breath with an increase in respiratory rate and a decrease in oxygen saturation. Patient 2's respiratory rate was 26 x/minute, and the oxygen saturation was 92%. Also, heartburn and anxiety experienced by the patient could trigger an increase in respiratory rate. It can be concluded that the breathing in both patients was not clear.

There was a difference in the assessment of the circulation of the two patients. Patient 1 had no problems, while patient two experienced heartburn, which felt like being stabbed with a pain scale of 5, duration + 5 minutes, pulse rate 136 x/minute, and the patient's expression grimaced. It can be concluded that in patient 2, the circulation is not clear. The disability assessment of the two patients had similarities, namely alert response, composmentis level of consciousness with an eye 4, motor 6, verbal 5 Glasgow Coma Scale (GCS) assessment, pupil reaction isochor, light reflex +/+, and no other complaints so that it can be concluded that the disability is apparent.

Exposure assessment prevents hypothermia in patients by placing blankets to keep body temperature warm. The body temperature of the two patients was within the normal range; there were no problems, so it could be concluded that the exposure was precise. The author conducted a secondary survey examination by conducting an anamnesis. There were similarities between patients 1 and 2 in the psychological problem of anxiety, which could increase shortness of breath with the expression that the patient felt anxious, afraid, and worried about the disease he was currently experiencing. Obtained objective data, the patient looked anxious and pale, and pulse frequency increased, so it can be concluded that the second survey was unclear.

Physical examination or head-to-toe of patients 1 and 2 obtained no abnormalities in the head, no lumps, and jugular vein distention in the neck. Symmetrical chest movements, fast and shallow breathing rhythm with tachypneic breathing patterns in patient 1, respiratory rate 28 x/minute, and oxygen saturation 93%, while in patient 2, respiratory rate 26 x/minute with 92% saturation. Patient 1's abdomen had no abnormalities, while patient 2 had tenderness. In the pelvis, there are no abnormalities such as pelvic pain, and both patients' upper and lower extremities have no abnormalities such as fractures and can be appropriately

moved. There is no symmetrical back deformity or neurological abnormalities on the back. The neurological response of the cranial nerves is functioning correctly.

Nursing diagnoses based on the problems found in the primary survey, there are three nursing diagnoses with significant problems in the airway and breathing. Meanwhile, in the secondary survey, there was one nursing diagnosis regarding the Indonesian Nursing Diagnosis Standards (IDHS). Nursing interventions refer to theories following the Indonesian Nursing Intervention Standards (SIKI) to establish a nursing action plan for patients 1 and 2. Regarding objectives and results criteria, the theory and case concepts have similarities, where the intervention is carried out following the primary and secondary surveys of both patients. In the future, references are needed, especially in emergency management, in the Indonesian Nursing Intervention Standards (SIKI) to support the process of emergency nursing care.

Implementation of nursing carried out in patients 1 and 2 with response time or response time to patients carried out in less than 5 minutes with a period of 5-10 minutes, response time as an indicator of the success of medical treatment can affect the quality of emergency services in the emergency room, in the case of treating both patients starting in less than 30 minutes to 60 minutes. Found similarities between theory and cases. As a final-year student, the author can manage the nursing plan carried out in the emergency room at TK.II Moh Hospital. Ridwan Meuraksa Jakarta, especially in managing emergency airway breathing by optimizing the fulfillment of oxygen needs.

Ten interventions have been prepared to manage the primary survey nursing plan on the airway. The author carried out collaborative actions giving nebulizer therapy and pharmacological therapy according to the doctor's instructions. Nebulizer therapy was given with Combivent 2.5 ml and Pulmicort 2 ml for 10-15 minutes in both patients, giving Resfar 12.5 cc/12 hours in NaCl 0.9% 100 ml via intravenously, which helps thin sputum in inpatient one and administer drug Methylprednisolone 125 mg dissolved in 2 ml of solvent via intravenous which helps prevent inflammation in patients with bronchial asthma given to patient 2. There is no difference in the interventions carried out between the two patients; it is just that the pharmacological management given is different according to the doctor's instructions. The author also performs independent nursing actions to monitor the airway, monitor additional breath sounds, monitor sputum production, teach effective coughing techniques, and recommends drinking warm water so that the results are still sputum with a watery white consistency which can be issued.

In the problem of ineffective breathing patterns/breathing in patients 1 and 2, the author provides collaborative action of administering nasal cannula oxygen 3 liters/minute, independent nursing actions monitoring the frequency, depth, and rhythm of breathing, monitoring additional breath sounds, monitoring oxygen saturation, and adjusting position with semi-fowlers. The results were obtained in both patients with dyspnea and reduced wheezing and crackles, and the patient seemed more relaxed. In patient 1, the respiratory rate was 24 x/minute, and the oxygen saturation was 99%, while in patient 2, the respiratory rate was 22 x/minute, and the oxygen saturation was 98%. The author performs the same nursing actions on both patients;

no obstacles are found, and the patient can follow every instruction in managing nursing actions.

The author carries out pain management, including identifying pain, using a pain scale, and teaching breathing relaxation techniques in acute pain/circulation problems in patients 2. The author educates patients to control pain independently with deep breathing relaxation techniques. The authors also carried out the collaborative installation of infusions in patients whom room nurses accompanied and gave Lansoprazole 30 mg and Omeprazole dissolved in 5 ml of solvent intravenously in patient 2. So the results obtained were that the pain scale was reduced to 4, the patient looked more relaxed, and grimaced expressions were reduced.

Secondary survey data by conducting an anamnesis of psychological problems in patients 1 and 2 found that both patients experienced anxiety characterized by feeling anxious, worried, and afraid of their current situation. The author provides emotional support for patients by listening attentively and practicing activities to reduce anxiety, namely deep breathing relaxation techniques and advocating for families to support patients. The actions given are no different for the two patients. The results obtained by patients become more relaxed, so it can be concluded that the importance of caring both physically and psychologically in patients in providing nursing care to patients with bronchial asthma.

Supporting factors in the management of nursing plans are cooperation between patients, families, and the health team. The author can build a trusting relationship between patients and their families to facilitate the process of providing nursing care in the emergency room of TK.II Moh Hospital. Ridwan Meuraksa Jakarta. Nursing plans that exist in theory are not all implemented. In general, the actions taken are more prioritized to save the patient's life with collaborative actions; after showing the condition's stability, an independent nursing action is carried out. In this case, emergency room nurses are expected to be able to have fast, precise, and swift skills in carrying out emergency nursing actions to improve quality health services.

The author evaluated the airway and breathing in both patients. Before the nursing plan was given, the patient experienced shortness of breath accompanied by white thick consistency sputum, increased respiratory rate, additional wheezing (+) crackles, and decreased oxygen saturation. After receiving collaborative nebulizer therapy, independent actions training in effective coughing, and recommendations to drink warm water, evaluation of the primary survey results revealed that the airway problem had improved in that it had partially resolved in both patients. However, the response to the results was that there was still a cough with phlegm with the consistency of white watery sputum that was quickly expelled. No inhibiting factors were found during collaborative and independent actions carried out by the author, and the patient followed the instructions given by the author in managing the nursing plan.

Both patients' evaluation of the breathing results improved, but there were still complaints of shortness of breath. Additional wheezing and rhonchi breath sounds were reduced, the use of accessory muscles was reduced, and the respiratory rates in patients 1 and 2 were reduced to 24 and 22 breaths per minute with 99% and 98% oxygen saturation, respectively, after the procedure. It indicates an improvement with a decrease in respiratory rate. However, it is not within the normal range (16-20 x/minute). Patients

can cooperate in providing nursing care if the author's actions do not find obstacles. With this, independent actions are still being carried out, namely monitoring the frequency, depth of breath, additional breath sounds, oxygen saturation with pulse oximetry, maintaining a semi-Fowler's position, and collaborating in administering nasal cannula oxygen 3 liters/minute.

The success rate of circulation in patient two is partially resolved with complaints of pain reduced to a scale of 4, grimacing expressions decrease, the patient looks relaxed, shortness of breath is reduced, and the patient can control pain independently with deep breathing relaxation techniques that the author has taught.

In the two patients' secondary surveys, the anxiety results showed improvement, with reduced complaints of anxiety. The response to the results of the two patients improved, the patient seemed more relaxed, and the patient was able to control anxiety with the deep breathing relaxation technique taught by the author, as well as receiving psychological support from the family who always accompanied the patient while in the emergency department.

The successful implementation of the primary survey, especially on airway and breathing, showed that the response to the expected outcome criteria was reduced shortness of breath, improved respiratory frequency, and sputum could be removed, especially in patient 1, which showed significant improvement because there were no triggering factors that aggravated the primary survey airway and breathing. Both patients showed improved changes by optimizing the fulfillment of the oxygen given, including collaborative actions of giving oxygen, nebulizer therapy to free the airway, adjusting the semi-fowler position, and monitoring oxygen saturation, so that the airway is clear and the breathing pattern is effective. It is the same as the research conducted by Riscawati & Annisa [24] in the emergency management of bronchial asthma patients in the ER, which shows the success of the actions in optimizing the fulfillment of oxygen needs.

The overall success rate for primary survey airway, breathing, circulation, and secondary survey anxiety patients shows improvement, with expected outcome criteria showing a response even though it is not within the normal range. However, the authors and room nurses continue to act independently in nursing and collaborate to achieve the expected results. Supporting factors in successfully managing patients and families are very cooperative in assisting the nursing care process; patients and families work well together following every action procedure and the hospital. The inhibiting factor for emergency treatment in non-emergency triage is a difference in the treatment time given within 30-60 minutes. However, the two patients were in the emergency room for several hours until the next day; they were transferred to the Catleya inpatient room (Women's internal medicine room) due to hospital procedures that require patients to wait for the Covid-19 antigen Swab examination, which is available in the morning at 09.00 WIB by laboratory staff.

The results of the Covid-19 antigen swab examination for both patients were negative. The patient was transferred to the Catleya inpatient room by the ward nurse and the writer using a wheelchair and did a handover between the emergency room nurse and the ward nurse, including submitting medical records and further instructions in the inpatient room. At the evaluation stage, the authors

concluded the importance of the role of emergency room nurses in providing fast, alert, and responsive service as well as a caring attitude both physically and psychologically. Nurses managing nursing plans are following existing procedures. In this case, the authors found that each room nurse has a caring attitude towards each patient without discriminating and continuously collaborates with other health teams while providing nursing care. The author also evaluates himself as a student involved in the service process, but there are still areas for improvement. However, the writer always wants to learn to become a competent nurse candidate and has a caring attitude in providing nursing care.

Conclusion

Nursing assessment by reviewing past and present medical history, there are no inhibiting factors in the assessment process. Both patients and families are cooperative in providing information, making it easier for the authors to collect data. The results showed that both patients had a history of asthma with the same general clinical manifestations, and there were trigger factors in the patients. Triage in both patients was carried out according to procedures in the non-emergency category with a time < 30 minutes. In patients 1 and 2, there were three primary nursing diagnoses, while in the secondary survey, there was one nursing diagnosis concerning the Indonesian Nursing Diagnostics Standard (IDHS) reference. On this occasion, the author focuses on the primary survey airway and breathing by optimizing the fulfillment of oxygenation but still determines nursing diagnoses in the primary and secondary survey, which need to be clarified. The stages of nursing planning include setting problem priorities, goals, and outcome criteria and determining nursing actions to be given to patients 1 and 2. In determining nursing interventions, the authors experienced no obstacles in preparing and planning nursing actions because they referred to the Indonesian Nursing Intervention Standard (SIKI) reference. The author carried out the nursing implementation stage with room nurses and other health teams with collaborative and independent nursing actions. Nursing actions are based on plans determined according to nursing problems, but several actions still need to be implemented according to the patient's condition. Every act of nursing care can be carried out well by the author; this can happen because of a trusting relationship with patients and their families, collaboration with other health teams, and always documenting it in nursing notes. Nursing evaluation is obtained from the results of observing the response to the actions that have been taken. In this case, the authors know the emergency airway and breathing management results by optimizing the fulfillment of oxygenation in Bronchial Asthma patients in the ER RS TK.II Moh. Ridwan Meuraksa Jakarta. The primary survey problem on the airway and breathing showed improvement with partial resolution. The results of shortness of breath were reduced in both patients, with decreased respiratory rate and oxygen saturation, there was still a cough with phlegm with the consistency of watery white sputum after collaborative action of giving oxygen, nebulizer therapy, administering pharmacological therapy, and independent nursing actions teach effective coughing and recommend drinking warm water. Evaluation of circulation in patient 2 showed that the results were partially resolved, with pain

reduced to a pain scale of 4 after the action was given to teach deep breathing relaxation techniques. The patient was able to control pain independently. In the secondary survey, the two patients were partially resolved with the result that both patients' anxiety was reduced, and they were able to overcome anxiety with deep breathing relaxation techniques, as well as receiving psychological support from their families while in the emergency room.

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