HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE, BEREKUM

A PATIENT AND FAMILY CARE STUDY ON BROCHIAL ASTHMA

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A PATIENT/FAMILY CARE STUDY SUBMITTED TO THE NURSING AND MIDWIFERY COUNCIL OF GHANA IN PARTIAL FULFILMENT TOWARDS THE AWARDS OF A LICENSE TO PRACTICE AS A PROFESSIONAL REGISTERED GENERAL NURSE

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PREFACE

Nursing is a professional health service that is directed towards the promotion and maintenance of health, treatment and prevention of diseases and the restoration of optimal functioning of the individual, family and communities. To be able to meet the various needs of patients and family, and thus give quality care to them, nursing care has moved from task oriented approach to giving of total or individualized care involving both patient and family.

The patient/family care study forms part of the assessment of the student nurse to qualify him/her for the award of a Registered General Nursing (Diploma) Certificate and a license to practice nursing.

The care study gives the opportunity to interact and co-ordinate with other members of the health team for the care and promotion of optimal health to a patient as an individual and the community as a whole. It also helps to develop a cordial relationship between the nurse, the patient and the family.

The study will use initials instead of the patient's name in order to ensure confidentiality.

ACKNOWLEDGEMENT

I am very grateful to the Almighty God who gave me strength, knowledge and direction to bring this work to a success.

I do also express my sincere gratitude to my patient, Mr S.B and family whose co-operation and assistance enabled me to bring this piece of work to a successful end.

My heartfelt thanks also go to my family, especially my mother and Uncle for their prayers and support throughout my education.

My sincere appreciation also goes to my supervisor, Mr J.A. Sir, may God richly bless you and the entire staff of the Holy Family Nursing and Midwifery Training College, Berekum including my colleagues for their immense contribution and guidance.

My next thanks go to staff of the Female Medical Ward of Holy Family Hospital, Techiman for their assistance and guidance throughout this work.

Finally, my thanks goes to the numerous authors whose books I used as references including all who helped in diverse ways to make this work a successful one.

May the Almighty God bless you all.

INTRODUCTION

The patient/family care study is a report of the nursing care rendered to a patient and family. It involves the interaction, between the patient, family and community on one hand and the health team on the other hand. It also involves the application of the nursing process to attain and maintain high level of wellness for a patient. This interaction occurs within a specific period of time.

My interaction with patient started on 19th October, 2021. She was admitted to the female medical Ward of the Holy Family Hospital, Techiman with the diagnosis of Asthma. Patient looked quite ill on admission and presented with difficulty in breathing and mild fever. She was admitted to the ward around 7:30 pm.

I had the desire to use Mrs A.G because I wanted to know more about Asthma, its causes, signs and symptoms, treatment and complications in order to be able to educate people on the disease and also to give a better nursing care to patients with the same or similar condition.

On 23rd October, 2021, my patient condition was good and she looked cheerful during the routine ward rounds. Dr A.S discharged my patient at said date. Three home visits were made, one while the patient was on admission, and the rest took place while patient was at home after his discharge.

This project work has been written under six (6) chapters;

Chapter one (1) deals with the assessment of the patient and it also includes the literature review of the disease condition (Asthma).

Chapter two (2) compares data with standards covering diagnostic investigations, causes, clinical features, treatment, complications, patient and family strengths, health problems and nursing diagnosis.

Chapter three (3) states the nursing care plan.

Chapter four (4) talks about the implementation of patient and family care plan, preparation of patient and family for discharge and re-habitation, as well as follow ups/home visits/continuity of care.

Chapter five (5) deals with the evaluation of care rendered to patient and family whilst summary and conclusion of the care given to patient is captured in chapter six (6)

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CHAPTER ONE

ASSESSMENT OF PATIENT AND FAMILY

1.0 Introduction

Assessment is the first stage in the nursing process. Assessment is a critical analysis and evaluation of the status of a particular condition, situation or other subjects of appraisal. It is done through observation, interviewing, physical examination, laboratory investigations, x-rays and other relevant records.

Based on the data collected, the patient's actual and potential health needs are identified and analysis and then necessary interventions provided.

This phase has also been divided into sub-headings and it entails; Patient's Particulars, Patient/Family Medical and Surgical History, Patient's Socioeconomic History, Patient's Developmental History, Patient's Lifestyle and Hobbies, Patient Past Medical and Surgical History, Patient Present Medical and Surgical History. It also includes Admission of patient, Patient and family Concept of her illness, Literature Review on the condition from which analysis will be made to identify the patient problems and validation of data.

1.1 Patient's particulars

Patients' particulars are facts or details about people which are written down and kept as a record. Mrs A.G is seventy-six (76) year old, born on 9th December, 1945, to Mrs A.G and Mr A.F. She is the last child of her parents and lives with her husband and five children in their own house at Diasempa a small community in Techiman, with a house number Bt-03-420923 but come from a small village near Techiman called Barimi in Bono East Region. She is a trader and sells tomatoes at Techiman market; she is 1.6 meters and weighs 65 kilograms. She

is covered by the National Health Insurance Scheme (NHIS) to foot any hospital bill. Her folder number is 08558/20.

She attended school at Roma Catholic Primary school at Barimi. She is dark in complexion. She is a Bono by tribe and speaks bono, Asante Twi and a little bit of English. Her next of kin is Madam A.F. her sister, Base on the assessment done on her there is no physical impairment.

1.2 Patient/Family's Medical History

Medical history is a record of health information about a person and his or her family which helps to know the total sum of a patient's health status prior to the presenting problem and also helps to know the presence of a possible disease inheritance.

Mrs A.G stated that she sneezes when she bathed with strong soap therefore; she is allergic to strong soap. She also explained that none of her family members suffered from an asthma. Apart from her, deceased family member died of natural deaths with no underlined conditions. She further told me that all family members are currently in good state of health and that, is her husband who has been frequently visiting the hospitals these days complaining of waist pains and she said she thinks is as a result of old age.

According to Mrs A. G, her family has no history of any hereditary diseases like diabetes mellitus, hypertension and sickle cell disease and that she is the only person in the family who has been diagnosed of asthma.

Through my interaction with Mrs A. G's elder son, I noticed that there is no history of any chronic and infectious diseases like tuberculosis, leprosy and epilepsy in the family. She also could not recall any history of mental illness like dementia, psychosis or delirium in the family

However, Mrs A.G admitted that periodically members of the family would suffer from minor diseases such as malaria, fever, cough and common cold that often resolve after getting a drug from the pharmacy. They visit the hospital when the disease persists for more days.

1.3 Socio-Economic History

This history is concerned with and examines the social and economic factors of patient and family to better understand how the combination of both influences one's health.

As stated earlier, Mrs A.G is a tomatoes seller who sells tomatoes at Techiman market. Her source of livelihood is from the tomatoes she sells at the market and some money she received from her children and annually she earns about 3000gh to 5000gh from the tomatoes she sells and the little money received from her children, she also states that when need arise she get support from family members and her children, which help her in taking care of her medical expenses. He is covered by the National Health Insurance Scheme (NHIS) to foot any hospital bill.

According to Mrs A.G, she is a Christians who is an active member of Methodist church in Diasempa district and take active part in church programs. Mrs A.G attends church on Sunday. She further explained that Saturday are days for funerals and weeding when need arises. She told me she does not know of any taboo in the family neither has she heard of any.

Mrs A.G with the support of her husband is able to afford her basic needs, hospital bills, house expenses and other expenses.

1.4 Patients Developmental History

Growth is the gradual increase in the size of the body and its organs. Growth means an increase in size, height, weight, length etc. which can be measured. Development is the biological, psychological and emotional changes that occur in human beings between birth

and the end of adolescence. Maturation is the emergence of individual and behavioural characteristics through growth processes over time. Developmental history documents significant events in a person's life.

According to Mrs A.G, she was spontaneously delivered per vagnium as a full-term baby at home by a traditional birth attendance. She did not specifically identify whether she attended antenatal clinic, Mrs A.G. was born the 9th of December 1945, and she was delivered normally with no complications.

Mrs A.G was breastfed exclusively for six months then mother started introducing complementary feeds such as porridge with milk, Mrs A.G started developing teeth and sitting at 6 months, at 7 months she was crawling and was able to stand at 9 months.

She did not recognized whether she was immunized against the childhood vaccine preventable diseases and the six childhood killer diseases namely; whooping cough, tetanus, diphtheria, tuberculosis, hepatitis B and poliomyelitis.

According to Eric Erikson's psychosocial theory of development, older adult develops a comprehensive sense of wisdom by renewing earlier stages of development and developing mature forms of the psychological achievements that they made throughout the life course, Mrs A.G falls under the growth theory of ego integrity versus despair is the eighth and final stage of Erik Erikson's stage theory of psychosocial development. This stage begins at approximately age 65 and ends at death. It is during this time that the person contemplates his or her accomplishment and develops integrity she or he sees as leading a successful life. With this theory the patient falls under ego integrity versus despair. This is because, it is this time a person reflect on what he or she has done and look to see if he/she has achieve what she dream of becoming or there has been any regret in fulfilling this aim or dreams.

1.5 Patient Lifestyle and Hobbies

According to Mrs A.G, she usually wakes up at around 5:30am and does her house hold chores. She prays, washes her face and empties her bowel and brushes her teeth once twice daily with toothbrush and pepsodent. She also helps her grandchildren to prepare to school and after that she ready to go to market. She likes taking her bath with warm water and non-strong soap. She usually takes her breakfast in the house and lunch at the market; she takes banku with ground nut soup.

Mrs A.G, after returning from market, she usually takes her supper around six o'clock in the evening, bath, and prepared her supper which is prepared around 6:30pm and retires to bed around 9:00pm. Sunday and Saturdays are mostly resting days for her. She leaves the house on Saturdays to attend church and if there is any funerals, weddings and other celebrations when the need arises and returns back home immediately afterwards. Her hobbies are watching movies and listening to music. Mrs A.G and her grandchildren go to church on Sunday her favourite meals are Fufu with groundnut soup. Mrs A.G is very sociable and relate well with other.

1.6 Patient's Past Medical and Surgical History

According to Mrs A.G has never experienced any childhood illness like measles or yellow fever. She has no allergy to any food, insect or drug but however sneezes when she comes in contact with soap with strong scent. She has never sustained any major accident or injury before

but however get abrasions from falls or cuts which usually resolves by itself or get treated at home. She has no physical disabilities.

According to Mrs A.G, hardly falls sick until recently, on October 19th 2021, she noticed she had difficulty in breathing and coughing while at the market trying to sell some things but was able to manage it home until 7:30pm when it got worst that she couldn't do anything and hurriedly rushed her to the emergency ward where she was detained for about two hours and diagnosed of asthma by Dr A.S, she added that, she sometimes complains of headache and abdominal pain which she manages in the house after visiting the Pharmacy. She also said that she was admitted to the female's ward on 17th November, 2019 and was diagnoses with ulcer and has never been admitted again until recently. She also said that, she has never had a surgical condition or operated on before.

1.7 Patient's Present Medical History

According to Mrs A.G, was well until 19th October, 2021 around 7:30pm when she started having difficulty in breathing, coughing, sneezing and complaining of headache. She became anxious and rushed her to the Emergency Unit of Holy Family Hospital, Techiman. Vital signs were checked and recorded:

- ✓ Temperature 37.0^{o}C,
- ✓ Pulse - 149 bpm,
- ✓ Respiration – 45cpm.
- ✓ Blood Pressure -130/90mmgh
- ✓ SpO2 -90%

There she was seen by Dr. S.A who admitted her to the female ward. She also ordered for Nebulized Salbutamol 2.5mg 6hourly x24hours, Paracetamol 250mg three times daily x 5days, Intravenous Amoxiclav 360mg 8hourly x 24hours, Intravenous Hydrocortisone 100mg stat and Syrup Cetrizine 5mg daily x 5 days.

1.8 Admission of Patient

Mrs A.G was admitted to the Female ward at Holy Family Hospital, Techiman on the 19th of October, 2021, at 7:30pm. She was brought in by her daughter and husband from the emergency ward accompanied by one nurse. Patient was coughing and vomiting once on arrival. She is a known asthmatic who came in with an acute asthmatic attack. She complained of difficulty in breathing, coughing, sneezing and headache.

Mrs A.G daughter and husband were welcomed into the unit and were made comfortable in bed and relatives were offered seats. They were later oriented to the ward, staff, student nurses and other patients on the ward. They were informed of visiting hours. The patient particulars were then entered into the admission and discharge book and on the daily ward state as well as the nurse notes. Mrs A.G, daughter and husband were reassured that all necessary nursing and medical interventions would be put in place to restore her to normal health.

Vital sign was checked and recorded as follows;

- ✓ Temperature - 37.0^0c
- ✓ Pulse - 149bpm
- ✓ Respiration - 45cpm

- ✓ Blood Pressure - 130/90mmgh
- ✓ SpO2 - 90%

Her weight was also checked and recorded as 65kilograms and height recorded as 5'5 meters. Physical examination on patient was done from head to toe and no abnormalities were detected.

She was examined by the doctor on duty and he requested for the following laboratory investigations to be done;

1. Full blood count
2. Sputum for culture and sensitivity
3. Chest x-ray may reveal increased density and consolidation
4. Pulmonary Function test
5. Arterial blood test

Patient was put on the following medication

1. Syrup cetirizine 5mg daily for 5 days
2. Paracetamol 250mg three times daily for 5 days
3. Intravenous amoxiclav 360mg 8 hourly in 24 hours
4. Nebulized salbutamol 2.5mg 6 hourly for 24 hours
5. Intravenous hydrocortisone 100mg stat.
6. Syrup simple linctus 5mls tds x 5 days.

Mrs A.G condition was ill-looking on admission. Patient and Family were made to understand that, once patient was in the hospital, the health team with their knowledge, competencies and

experience would manage the patient until she is discharged. The discharge planning of the patient c started on the day of admission. It included the patient, the family and the health team in whom the patient's care were entrusted to. The family of the patient were made to understand that, Mrs A. G's current health status was one that necessitated intensive management and monitoring until a period of time when patient is seen to be doing well and would be discharged. An example was given for the family to understand that the patient will need to be nebulised by inhalation which is one of the fastest routes to improve one's breathing pattern until a time that patient can be switched to oral medications. I later expressed interest in using Mrs A.G for my care study in partial fulfilment of the award of licence to practice as a Professional Registered General Nurse by the Nursing and Midwifery Council and introduced myself to the daughter and husband again as a final year student of Holy Family Nursing and Midwifery Training College, Berekum. I told Mrs A.G and family about it and explained further that it would not only involve the patient but the family also and they have the right to opt out if they think is not appropriate to do so, I made her aware that there will be the need for me to render a complete and individualized nursing care to the client until discharge and follow up visit after discharge until she recovers fully. Mrs A.G and her family also received me harmoniously after I explained to them and said they will cooperate with me and give all necessary information to complete the care am rendering to them. My nephew suffered the same condition which made me to gain interest in using this patient.

1.9 Patient's Concept of Illness

According to Mrs A.G, she does not know what causes the disease. Even though she does not have much knowledge about the condition, she did not associate it with any spiritual influence.

She stated that they were Christians and therefore she knows God will not allow any misfortune to happen to her.

1.10 Literature Review on Asthma

Anatomy of the Respiratory System

The respiratory system has many structures and organs with their various functions which help respiratory activities to be carried out. These include;

1. Nose
2. Pharynx
3. Larynx
4. Two bronchi (one bronchus to each lung)
5. Bronchioles and smaller air passages
6. Two lungs and their coverings, the pleura

The two primary bronchi are formed when the trachea divides at about the level of the 5^{th} thoracic vertebra. The right bronchus is wider, shorter, and more vertical unlike the left which is narrower and about 5cm long. The right bronchus is approximately 2.5cm and thus becomes easily obstructed when a foreign body is inhaled. It branches into three whiles the left branches into two, one to each lobe. Within each lobe the lung tissue is further divided into lobules which are supplied with air by the terminal bronchioles. This further divides

into respiratory bronchioles, alveolar ducts and large numbers of alveoli sacs (air sacs), about 150million of them in an adult lung where gaseous exchange takes place. The alveoli are surrounded by a dense network of capillaries. Lying between the squamous cells are septal cells that secrete surfactant, a phospholipid fluid which prevents the alveoli from drying out. It also reduces surface tension and prevent alveoli walls from collapsing during expiration. (Ross and Wilson, 2012).

DEFINITION

Asthma is a condition of the lungs or chronic inflammatory disease of the airways that causes airway obstruction, airway hyper responsiveness due to spasms of the bronchial smooth muscle, oedema of the mucosa and increased mucus secretions or production in the bronchi and bronchioles brought on the various stimuli.

INCIDENCE

Asthma is the most common chronic disease, though any age can be affected. Asthma death rate is highest among persons aged 65 years and older (30.4 per million) compared with persons aged 0-4 years (1.4 per million), 5-11 years (3.3 per million), 12-17 years (2.5 per million), 18-24 years (4.5 per million), 25-34 years (5.9 per million), and 35-64 years (11.4 per million) and are most common among women and blacks. Nevertheless, asthma deaths are relatively rare event and largely preventable, increased hospitalizations and emergency department visits are risks for death due to asthma (K.Toren, AC Olin, J Hellgren, and BA Hermansson)

AETIOLOGY

Asthma has no common cause but there are factors that can predispose factors or allergic triggers of the individual to the condition. These include:

1. Pollen; Tress, grasses, weeds

2. Allergy to pollens (Examples grass, tree and weed) or to perennial (Examples mold, dust, roaches) and animal fur.

3. Exercise

4. Stress/Psychological/Emotional upset

5. Rhinos sinusitis with post nasal drip.

6. Certain medications. (Aspirin, Cimetidine)

7. Airway irritant/Physical factors such as air pollution, dust, chemicals (laundry detergents), smoke, strong odour or perfumes.

8. Cold weather changes or sudden change in temperature and barometric pressure

9. Tobacco Smoke

Allergic triggers usually cause asthma symptoms by demonizing or bridging the high-affinity immunoglobulin E (IgE) receptors located on the mast cells in the lungs.

PATHOPHYSIOLOGY

The smaller bronchi contain a number of muscular tissues in their walls when contracts cause the narrowing of the lumen of the bronchial tubes (bronchospasm). In case of inhaled or ingested allergen, sensitizing antibodies immunoglobulin (IgE) are produced by the B-lymphocytes in large numbers which attaches themselves to the mast cells found in the lungs.

A re-exposure to allergens causes the mast cells to locally release spasmogens and vasoconstrictive substance which include histamine, bradykinins, prostaglandins and eosinophil chemotactic factor of an as Phylaxis (ECFA).

When the vagal nerves are also stimulated through exercise, cold, emotion or smoking, the parasympathetic system release acetylcholine which causes direct bronchoconstriction as well as bronchospasm and secretion of viscid mucus in the bronchi. (PJ Barnes, JM Drazen- 2002)

The narrowing causes difficulty in breathing air in and out of the alveoli. In order to obtain sufficient ventilation of lungs in the presence of increased resistance to airflow, the respiratory movements are forced and in addition to these muscles, accessory muscles are brought into action. The accessory muscles used in respiration result in the individual experiencing more difficulty in empting the lungs than filling them.

Therefore, the characteristics of asthma are difficult and prolong expiration which brings about fatigue. In severe cases the attack may be prolonged for more than 24 hours and may not respond to treatment. There it is referred to as Status Asthmatics (Smeltzer, 2020).

CLASSIFICATION

The condition can be classified or grouped into four (4) types. These are;

Intermittent asthma: It is characterized by cough, wheezing, chest tightness, or difficult breathing less than twice a week, flare-ups are brief, but intensity may vary.

Mild asthma: Will-controlled with as needed reliever medication alone or with low-intensity controller treatment such as low-dose inhaled corticosteroids (ICS), leukotriene receptor antagonists, or chromones.

Moderate asthma: Well-controlled with low-dose ICS/long-acting beta2-agonists (LABA).

Severe asthma: Requires high-dose ICS/LABA to prevent it from becoming uncontrolled, or asthma that remains uncontrolled despite this treatment (Eu, 2014).

CLINICAL FEATURES

1. Swelling or inflammation, specifically in the airway linings.
2. Production of large amounts of mucus that is thicker than normal.
3. Narrowing because of muscle contractions surrounding the airways.
4. Feeling short of breath.
5. Frequent coughing, especially at night
6. Wheezing (a whistling noise during breathing)
7. Difficult breathing
8. Chest tightness
9. Chest tightness (Ambardekar,,2020)
10. Tachycardia and increase pulse rate pressure may be present.

11. Hypoxemia and central cyanosis may set in as a late sign of poor oxygen

12. Nocturnal symptoms may be present

13. Choking sensation during exercise

14. Anxiety and apprehension

15. Diaphoresis

DIAGNOSTIC INVESTIGATIONS

1. Physical examination: Is done to look for signs of asthma or other related conditions. Like the ears, nose, throat, skin, and listen to your chest and lungs. Listen to your chest and lungs.

2. Signs and symptoms and physical examination may help in the diagnosis of the disease.

3. Arterial blood gas analysis and pulse oximetry reveal hypoxemia during acute stage.

4. Skin test to identify allergen.

5. Full blood count test may disclose elevated eosinophils.

6. Pulmonary function studies may reveal diminished maximum breathing capacity, tidal volume and forced expiratory volume.

7. Chest x-ray (Smeltzer, 2020)

DIFFERENTIAL DIAGNOSIS

There is specific diagnosis done to confirm the condition since other conditions mimic the same signs and symptoms. Occasionally, asthma may resemble;

1. Foreign body in the throat
2. Pertussis
3. Pneumonia
4. Hyperventilation

MEDICAL TREATMENT

1. Give Humidified oxygen by nasal cannula at 2L/minute to ease breathing and also increase arterial oxygen saturation.
2. Intubation and mechanical ventilation are instituted if the client fails to respond to oxygenation.
3. Bronchodilators such as theophylline can be given to relax bronchial smooth muscle thus dilating the airway.
4. Corticosteroids such as Hydrocortisone Sodium Succinate can also be given for their anti-inflammatory properties and to reduce oedema that is they decrease inflammation.
5. Antibiotics such as Erythromycin can be given to fight against any infection. Example respiratory infections.
6. Metered Dose inhaler like salbutamol (Ventolin) may also be given as a fast-acting bronchodilator to act directly on the airways in mild-moderate asthma.

7. Analgesic such as Paracetamol can be given to help control pyrexia and relieve pain.
8. Steroids such as prednisolone to control inflammation.

NURSING MANAGEMENT

Psychological Care

1. Patient and family are reassured to gain their cooperation and lessen their anxiety level about the condition.
2. The nurse then assures them of competent staff that will help with the management of the condition.
3. Provide divisional therapy in the form of jokes, watching of kid's programmes on television, listening to soft music. All these aimed at diverting child's attention from the pain and worries.

Rest and Sleep

1. Patient is encouraged to rest to conserve energy.
2. Remind patient to be in bed to avoid over exertion and possible exacerbation of symptoms.
3. Ensure noise-free environment and proper ventilation.
4. Coordinate all nursing activities to avoid disturbing child's sleep, to relieve respiratory distress and help in maximum lung expansion, place child in fowler's position with the head end of the bed raised.

Observation

1. Observe the severity of the attack and degree of respiratory distress. Examples are rapid/shallow respiration and dyspnoea.
2. Check and monitor vital signs such as temperature, pulse, respiration and blood pressure and SpO_2 were recorded accurately. Tepid sponge if temperature is above normal.
3. Observe breathing pattern for expiratory dyspnoea noting whether the child uses her accessory muscles.
4. The level of patient's anxiety should be noted.
5. The patient should be observed for cyanosis and signs of air hunger.
6. Patient is observed for signs of dehydration like weight loss, loss of skin turgor, oliguria.
7. Monitor intake and output chart if intravenous fluids are in situ to avoid fluid overload. Observe the site for swelling and also patency as well as flow rate. Sputum is observed for blood stain, amount and colour.

Nutrition

1. Encourage intake of fluids daily. This is important because when respiratory rate increases, there is an increase fluid loss during exhalation which can lead to dehydration.
2. Normal diet can also be given if patient can tolerate.
3. Fluids also help to liquefy the secretions.

Elimination

1. Child is encouraged to void and empty bowel when the need arises.
2. Encourage intake of fluids, roughages and fibre to promote easy bowel movement.
3. Regular passive exercise and changing position is also encouraged to promote peristalsis and prevent pressure sore.

Exercise

1. Exercise improves circulation; prevent oedema, hypostatic pneumonia and others.
2. Proper breathing pattern such as abdominal breathing, side expansion breathing, forward breathing and elbow arching can be done in the form of exercise.
3. Passive exercise such as raising child's limbs, assisting child to sit up in bed is encouraged.

Personal Hygiene

1. Because there may be poor appetite, patient oral toileting or mouth care is done before and after meals.

2. Mouth care is done on regular basis to avoid dryness and cracking that might result from dehydration.

3. Patient may need to be bed bathed if she cannot walk to the bathroom.

Health Education and Home Care

1. The patient needs advice to develop a healthy habit. She should be provided balanced diet such as food rich in protein, carbohydrate and vitamins.

2. Advice patient on respiratory irritant or allergens such as flowers, tobacco smoke, strong perfumes, odour of agents.

3. Encourage family to protect as much the patient from cold and if possible emotional upset should be prevented.

4. Educate patient and family on medication, purpose and action of the drug and advise them to report any adverse effect.

5. There is the need to brief the patient and family on the knowledge of the condition and triggers to avoid.

6. Advise them on early sign and symptoms and the need for early treatment.

7. Regular follow up is important in the management of asthma therefore the need to stress on.

Medication

1. Serve prescribes medication as ordered.

2. Observe the rules of drug administration such as the right patient, right drug, right time, right dose, right route, right to know and refuse drug.

3. Monitor desired effect and side effect of drugs. Document and report any adverse effect for immediate action.

Prevention

1. Patients with recurrent asthma should undergo tests to identify the substances that precipitate the symptoms.
2. Possible causes are dust, dust mites, roaches, and certain types of cloth, pets, horses, detergents, soaps, certain foods, mold's, and pollens.
3. If the attacks are seasonal, pollens can be strongly suspected, patients are instructed to avoid the causative agents whenever possible

Complications

1. Bronchiectasis- This is a permanent dilatation and thickening of the airways characterized by chronic cough, excessive sputum production, bacterial colonization and recurrent acute infections. Due to continued inflammation of the airway, the elastic and muscular structure is destroyed. Poor mucus clearance causes bacterial colonization of the collected mucus leading to permanent dilatation of the airway.

2. Emphysema-Emphysema is a progressive disease of the lung that primarily causes shortness of breath due to over-inflation of the alveoli. Because of prolonged cough and mucus accumulation, air sacs are destroyed making it progressively difficult to breath.

3. Atelectasis-Atelectasis is a complete or partial collapse of a lung or lobe of a lung. It can be a complication of asthma when there is blockage of the bronchiole or bronchus probably by mucus in the airway which results in reduced or absent gas exchange.

4. Respiratory failure-Respiratory failure results from inadequate gas exchange by the respiratory system, meaning that the arterial oxygen, carbon dioxide or both cannot be kept at normal levels. Increased airway resistance causes inadequate alveolar ventilation which may lead to respiratory failure.

5. Airway obstruction-Airway obstruction is a blockage in the airway which may prevent air from getting into the lungs. In asthma, there is over secretion of mucus, bronchoconstriction and inflammation which narrows the airway and may lead to airway obstruction.

6. Status asthmatics-This is an acute exacerbation of asthma that does not respond to standard treatments of bronchodilators and steroids. It is a life-threatening episode of airway obstruction and is considered a medical emergency.

7. Pneumonia-Pneumonia is an inflammatory condition of the lung affecting primarily the microscopic air sacs known as alveoli. People who suffer asthma are at risk of getting pneumonia due to the accumulation of mucus in the airway which can lead to bacterial pneumonia. (R De Marco, G Pesce, A Marcon, S According 2013 Journals.plos.org)

1.11 **Validation of data**

From the data gathered from Mrs A.G on the admission, clinical features in the literature review from the textbooks as well as signs and symptoms exhibited by the patient such as cough, dyspnoea and wheezing. There was clear evidence that Mrs A.G has Asthma as diagnosed by the physician.

Also, the diagnostic investigation carried out on the patient such as peripheral blood test revealed elevated eosinophil, confirmed the said diagnosis. Home visits were carried out to know the environmental condition of my client's home to see if there is an impact or any precipitating factor that triggered the ill health of my client.

Base on this, it is evident that the data given is valid and contain no error.

CHAPTER TWO

ANALYSIS OF DATA COLLECTED

1.2 Introduction

This is the second step in the nursing process and simple entails a detailed examination of information gathered from patient in order to understand its nature or determine its essential features (Merriam-Webster dictionary 2007). Analysis of data involves the breakdown of data collected and sorting them out to know the factors which have contributed to the patient's problems and solutions find to the identified problem. This helps to know and draw the patient's care plan. Therefore, analysis in patient and family involves the evaluation of data gained from the patient on his or her condition with that of the literature review to determine the relationship between them.

This chapter includes the following;

1. The Comparison of Data with Standards.
2. The Patient/Family Strength.

3. The Patient/Family health problems.
4. The Nursing diagnosis.

2.1 **Comparison of Data with Standard**

Here, data collected from the patient, relatives and her significant others is compared with those in the literature review to help strike the balance between the two and to also come to a final conclusion that the patient really had the diagnosis under study. These include diagnostic investigation, causes, signs and symptoms, treatment and complication.

A. Diagnostic Investigation/Test

Diagnostic investigation is a test performed to detect, diagnose, or monitor diseases, disease processes, susceptibility, and determine a course of treatment. It is performed to confirm, or determine the presence of diseases in an individual suspected of having the disease, usually following the report of symptoms, or based on the results of other medical tests. The following investigations and test were carried out on Mrs A.G to assist treatment.

1. Full blood count
2. Chest x-ray
3. Malaria parasite test
4. Pulmonary function test
5. Bronchoscopy
6. Sputum culture and sensitivity test
7. Pulse-oximetry

Table 1.0: Comparison of diagnostic measures of Mrs A.G to the literature review

Diagnostic Measures in the Literature Review	**Diagnostic Measures conducted on Mrs A. G**
1.Arterial blood gas analysis and pulse oximetry	1.Patient's blood gas and pulse oximetry was not tested
2.Skin test for allergen	2. Skin test for allergen was not conducted for patient.
3.Chest x-ray	3. Chest x-ray was conducted for patient.
4.Full blood count	4. Full blood count conducted for patient.
5.Pulmonary function test	5. Pulmonary function test was not conducted for patient.

From the above comparison, it is clearly seen that, Mrs A.G suffered the condition since some of diagnostics measures in the literature review were conducted on her to confirm the condition. Tests that were not conducted on her include; pulmonary function test, skin test for allergen and arterial blood gas analysis and pulse oximetry. Although malaria parasite test was not indicated in the literature review, it was done to exclude malaria as my patient had low grade fever.

Table 2.0 Diagnostic Investigation/Test conducted on my client.

The following are the diagnostic investigations carried out on my client and the result of the tests.

Date	**Specimen**	**Investigation**	**Results**	**Normal Range**	**Interpretation**	**Remarks**
19/10/21	Blood	Full blood count: White blood cell (WBC) count Red blood cell (RBC)count	16.15x103 µL 4.61x103 µL 12.4 g/dl	3.50-10.50x10^3µL 2.50-5.50 x10^6 µL	High indicating infection Normal	Intravenous Amoxicillin + Clavulanic acid 300mg tds x 24 hours was given. No treatment given

		Haemoglobin level (HB)		8.0-17.0 g/d	Normal	No treatment given
19/10/21	Blood	Malaria Parasite Test (MP's)	No malaria parasite seen	There should be no malaria parasites seen	Patient has no malaria	No treatment given
20/10/ 21	Presence of patient	Chest x-ray	Normal	Normal lungs should be clear with dense shadows	Patient has no lung disease	No treatment given

B. Causes of Patient's Illness

With reference to the predisposing factors of Asthma as indicated in the Literature review, it is clearly noticed that my patient condition was caused by infection as the white blood cell levels were raised above normal range depicting the presence of infection in the patient.

Table 3.0 Clinical Features presented by the patient as compared to those outlined in the literature review

Clinical features are a term used to describe the feeling+ that is experienced by the individual affected or that which can be detected by someone else. These are the clinical features exhibited by the patient.

Clinical Features in the Literature Review	**Clinical Features Exhibited by my client**
1. Patient should present with cough with or without mucus production.	1. Patient was coughing and there was mucus production.
2. Generalized wheezing on expiration must be present.	2. General wheezing on expiration was present in the child.
3. Generalized chest tightness and dyspnoea must be present.	3. Patient had dyspnoea and chest tightness
4. Tachycardia and increased pulse rate may be present.	4. The patient had tachycardia and increased pulse rate of about 140 bpm.
5. The attack often occurs at night or early in the morning.	5. The attack did not occur at night or in the morning but in the evening.

6. Patient may experience or present with diaphoresis.	6. There was no diaphoresis.
7. The onset must be gradual with nasal congestion and sneezing.	7. Nasal congestion and sneezing was present
8.Hypoxaemia and central cyanosis may set in	8. Patient did not experience any hypoxemia and central cyanosis
9.Chocking sensation during exercise	9. Chocking sensation during exercise was present.
10. Anxiety and apprehension.	10. Anxiety or apprehension was observed on patient.
11.Vomiting	11.Patient experienced vomiting
12. Nocturnal symptoms may be present	12.Nocturnal symptoms were not present

From the above comparison, it is clearly seen that, Mrs A.G suffered the condition since she exhibited most of the signs and symptoms of the condition except diaphoresis, hypoxemia and central cyanosis

C. Treatment given to my patient

Treatment is the use of an agent, procedure, or regimen, such as drug, surgery, or exercise in an attempt to cure or mitigate a disease condition or injury. Below is the list of treatment that was given to Mrs A.G

1. Syrup simple linctus 5mls tds x 5 days
2. Syrup cetirizine 5mg daily for 5 days
3. Paracetamol 250mg three times daily for 5 days
4. Intravenous amoxiclav 360mg 8 hourly in 24 hours
5. Nebulized salbutamol 2.5mg 6 hourly for 24 hours
6. Intravenous hydrocortisone 100mg stat.

Table 4.0 Comparison of treatment outlined in the literature review with those given to the patient.

Treatment From the Literature Review	**Treatment Given to My client**
1. Bronchodilator a. Theophylline b. Salbutamol was not found in the literature re view.	**1. Bronchodilator** a. Theophylline was not administered to the client b. Salbutamol was administered to patient

2.Antibiotics a. Erythromycin b. Iv Amoxicillin + clavulanic acid was not found in the literature review	**2.Antibiotic** a. Erythromycin was not given to my patient b. IV Amoxicillin + Clavulanic acid was given to my patient
3.Corticosteroids a. IV Hydrocortisone Sodium Succinate	**3.Corticosteroids** a. IV Hydrocortisone sodium succinate was prescribed for my patient
4. Analgesic a. Paracetamol suppository	**4.Analgesic** a. IV Paracetamol(500mg) was given
5.Metered dose inhaler a Salbutamol	**5.Metered dose inhaler** a. Salbutamol nebulizer was administered to my client
6. Steroids a. Oral Prednisolone	**6. Steroids** a. Oral Prednisolone was not administered to my patient.

7.Intubation and mechanical ventilation	7. Mr's was not intubated or mechanically ventilated.
8. Humidified oxygen	8. Client was not given humidified oxygen

From the comparison above it is obvious that Mrs A.G had, the right treatment and that helped her to recover very fast without any complication setting in. However, she was given syrup simple linctus which was not in the literature.

Table 5.0 Pharmacology of Drugs Administered to Mrs A.G

Date	**Drug**	**Dosage and route of administration according to literature review**	**Dosage and route of administration to patient**	**Add the heading**	**Desirable effect**	**Actual effect**	**Side effect/ remedies**
19/10/21	Salbutamol	**Adult dose** 12years and above-- 2.5mg tid or qid by nebulizer.	2.5mg start then, 2.5mg 6 hourly x 24 hours **Route** It was given through inhalation	Bronchodilator	Relaxes bronchial and uterine smooth muscle by acting on beta 2-adrenergic receptors and improves ventilation.	Patient respiratory signs and symptoms improved	Tremors, headache, tachycardia palpitation, heart burns, weight loss muscle cramps. Child did not experience any of these side effects

19/10/21	Intravenous amoxicillin and clavulanic acid	50mg/kg amoxicillin and 12.5mg/kg clavulanic acid 12 hourly intravenously	360mg tid x 24 hours **Route** Intravenously	Antibacterial and beta lactamase inhibitor	Used for treating infections.	Patient was relieved from the infections which precipitated the condition	Itching, skin rash, redness of the skin, fever, bloating, dizziness, dark urine. None of the above was recorded.

19/10/21	Paracetamol	**Adult dose** 1g three times daily	250mg tds x 5days	Analgesic	Relieves one from pain	Child was relieved from chest pains	Skin reactions Liver damage None of the above was noticed.

19/10/21	Iv Hydrocortisone	A**dult dose** 100mg to 500mg qid	100mg stat Then 50mg bd x 24hours	Corticosteroid-Anti-Inflammatory	Decreases inflammation and suppress immune response	Inflammation activities were reduced and patient could breathe well.	Weight gain, Weakness, Hyperglycaemia, and Increased skin fragility. None of these side effects was seen.

19/10/21	Syrup Cetirizine	**Adult dose** 10mg daily	5mg dly x 5 days	Anti-histamine	It reduces the symptoms of allergic reaction.	Allergic reaction was reduced and patient	Headache pharyngitis, Abdominal pains, Drowsiness, None of these side effects was seen.

						stopped sneezing.	
19/10/21	Syrup simple linctus	**Adult dose** 15ml tid	5mls tds x 5 days	Expectorant	It helps loosen congestion in your chest and throat making it easier to cough out thick mucus.	Thick mucus secretion was easily coughed out	Dizziness, headache, stomach upset and skin rash. No side effect recorded.

Complications

With reference to the literature review, the complication of asthma includes;

1. Bronchiectasis : This is a permanent dilatation and thickening of the airways characterized by chronic cough, excessive sputum production, bacterial colonization and recurrent acute infections. Due to continued inflammation of the airway, the elastic and muscular structure is destroyed. Poor mucus clearance causes bacterial colonization of the collected mucus leading to permanent dilatation of the airway

2 .Emphysema: Is a progressive disease of the lung that primarily causes shortness of breath due to over-inflation of the alveoli. Because of prolonged cough and mucus accumulation, air sacs are destroyed making it progressively difficult to breath.

3. Atelectasis: Atelectasis is a complete or partial collapse of a lung or lobe of a lung. It can be a complication of asthma when there is blockage of the bronchiole or bronchus probably by mucus in the airway which results in reduced or absent gas exchange

4. Respiratory failure: Respiratory failure results from inadequate gas exchange by the respiratory system, meaning that the arterial oxygen, carbon dioxide or both cannot be kept at normal levels. Increased airway resistance causes inadequate alveolar ventilation which may lead to respiratory failure.

5. Airway obstruction: Airway obstruction is a blockage in the airway which may prevent air from getting into the lungs. In asthma, there is over secretion of mucus, bronchoconstriction and inflammation which narrows the airway and may lead to airway obstruction.

6. Status asthmatics: This is an acute exacerbation of asthma that does not respond to standard treatments of bronchodilators and steroids. It is a life-threatening episode of airway obstruction and is considered a medical emergency.

7. Pneumonia: Pneumonia is an inflammatory condition of the lung affecting primarily the microscopic air sacs known as alveoli. People who suffer asthma are at risk of getting pneumonia due to the accumulation of mucus in the airway which can lead to bacterial pneumonia.

However, the patient did not suffer from any of these complications because she came early to the hospital, had the right diagnosis and received the right treatment thus recovered earlier than the complications could set in.

2.2 Patient and Family's Strengths

Patient and family strength involves those activities that the patient could do and those that the family could do to help the patient towards recovery. On admission patient/family had the following strength;

1. Patient can breathe with the aid of her accessory muscles.
2. Patient/family is cooperative to the health team on every intervention carried out on the patient.
3. Patient can verbalize the presence of chest pain.
4. Patient is able to expectorate the sputum when she coughs
5. Patient can sleep for about 4-5 hours at night.
6. Patient/family knows it is triggered by allergies.

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2.3 Patient's Health Problems

Health problems can be said to be the major reasons for which a patient and family seeks for health care. It could be either actual or a potential problem and they are the basis for planning

an effective care for a patient. Data collected from my patient/family through observation and interviewing showed that Mrs A.G had the following health problems;

1. Patient experiences difficulty in breathing. (19/10/21).
2. Patient and Family is Anxious. (19/10/21).
3. Patient complains of chest pains when coughing. (20/10/21).
4. Patient complains of difficulty in sleeping. (20/10/21).
5. Patients complain of fever. (21/10/21)
6. Patient/family has less knowledge about the condition. (21/10/21)

2.4 Nursing diagnosis

Nursing diagnosis which is the second stage of the nursing care plan, deals with the identification of the actual and potential problem from the information gathered from the patient. After assessing Mrs A.G the following nursing diagnosis was made based on the patient's health problems listed.

With respect to the problems underlined earlier on, the following nursing diagnosis was formulated;

1. Ineffective breathing pattern (dyspnoea) related to constricted of bronchi. (19/010/21)
2. Anxiety (patient and family) related to the diagnosis of Asthma and health status. (19/10/21)
3. Acute pain (chest pain) related to persistent cough. (20/10/21)

4. Activity intolerance related to increase energy expenditure associated with persist cough.

5. Hyperthermia related to the disease inflammation process. (20/10/21)

6. Knowledge deficits related to inadequate of exposure to information about condition. (21/10/21)

CHAPTER THREE

PLANNING OF PATIENT AND FAMILY CARE

3.0 Introduction

This involves identification of problems, formulating of nursing diagnosis and setting goals and objectives to achieve health needs of patient which will aid in successful recovery of the patient.

3.1 Objectives/ Outcome Criteria

These are measurable changes in the conditions or behaviour of an individual that a nurse expects to achieve after administering specific interventions (Keane, 2003).

The following objectives were set for patient and family care during their stay at the hospital to help solve their actual and potential health problems that were identified.

1. Patient's breathing pattern will be improved within 12 hours as evidenced by;

    a. Patient verbalizing that she is able to breathe without difficulty
    b. Nurse recording normal respiratory rate (12-18cpm)

2. Patient will be relieved of pain (chest) within 24 hours as evidenced by;

    a. Patient verbalizing that she has been relieved of pain.
    b. Nurse observing a relaxed and cheerful facial expression.

3. Patient will be relieved of fever within 24 hours as evidenced by;

    a. Patient verbalizing that she is no warmer to touch.

b. Nurse observing that patient's body temperature falls within the normal range (36.2-37.3 degrees Celsius)

4. Patient will be relieved of anxiety within 24 hours as evidenced by;

a. Patient verbalizing that she is no more anxious.
b. Nurse observing that patient is relaxed with cheerful facial expression

5. Patient will demonstrate an increased tolerance for activity within 24 hours as evidenced by;

a. Patient participation in activities of daily living.
b. Nurse observing that patient is able to perform activities of daily living without exertion.

6. Patient will obtain adequate knowledge about the disease condition (Asthma) within 12 hours as evidenced by;

a. Patient being able to repeat the causes, signs and symptoms, treatment and complications of the disease condition.

Table 6.0 Nursing Care Plan for Mrs A.G

Date/ Time	**Nursing Diagnosis**	**Objective/ Outcome Criteria**	**Nursing Orders**	**Nursing Intervention**	**Date/ Time**
19/10/2021 11:30am	Ineffective breathing pattern related to excessive mucus secretion in the airways	Patient's breathing pattern will be improved within 12 hours as evidenced by; a. Patient verbalizing that he is able to breathe without difficulty b. Nurse recording normal respiratory rate (12-18cpm)	1. Remove tight clothing around patient's neck, chest, and waist to aid in breathing. 2. Encourage fluid intake to thin secretions 3. Suction patient PRN 4. Put patient in the up-right position. 5. Open nearby windows to enhance adequate ventilation. 6. Educate patient on coughing and deep breathing	1. Tight clothing around patient's neck, chest, and waist was removed to aid in easy breathing. 2. Fluid intake was encouraged. 3. Suction was done PRN. 4. Patient was put in an up-right position to increase lung expansion. 5. Nearby windows were opened to allow fresh air in. 6. Patient was educated on coughing and deep breathing	19/10/2021 11:30 pm

			7.Serve prescribed bronchodilator	7.Prescribed bronchodilator was served	

Date/ Time	**Nursing Diagnosis**	**Objective/ Outcome Criteria**	**Nursing Orders**	**Nursing Intervention**	**Date/ Time**
19/10/2021 5:30 pm	Hyperthermia related to infection	Patient will be relieved of fever within an 24 hours as evidenced by; a. Patient verbalizing that he is no warmer to touch.	1. Tepid sponge patient PRN 2. Ensure adequate ventilation by opening windows and putting on fans. 3. Monitor vital signs especially	1.Patient was tepid sponged PRN 2. Adequate ventilation was ensured by opening windows and putting on fans.	20/10/2021 5:30 pm

Date/Time	Nursing Diagnosis	Objective/ Outcome Criteria	Nursing Orders	Nursing Intervention	Date/ Time
19/10/2021 10:20 am	Acute pain (chest) related to localized inflammation and persistent cough	Patient will be relieved of pain (chest) within 24 hours as evidenced by; a. Patient verbalizing that he has been relieved of pain. b. Nurse observing a relaxed and cheerful facial expression.	1. Assess the degree of pain using a pain rating scale of 0-10. 2. Elevate head end of the bed and change patient position frequently 3. Encourage patient to splint chest and effectively cough while in upright position. 4. Encourage oral fluid intake of about 3000 ml per day and offer warm rather than cold fluids.	1. Patient was assessed for the level of pain using a pain rating scale of 0-10 2. Head end of the bed was elevated and patient position changed frequently. 3. Patient was encouraged to splint chest and effectively cough while in upright position 4. Oral fluid intake of about 3000 ml per day was encouraged and warm rather than cold fluids were offered.	20/10/2021 10:20 am

			5.Apply warm compresses on patient's chest 6.Administer prescribed analgesics and mucolytic 7.Administer prescribed antibiotics	5. Warm compresses were applied to patient's chest 6. Prescribed analgesics and mucolytic were administered 7. Prescribed antibiotics were administered	
		b. Nurse observing that patient's body temperature falls within the normal range (36.2-37.3 degrees Celsius).	temperature an hourly. 4.Reduce the number of bed linens 5. Remove all constrictive clothing from patient. 6. Serve prescribed antipyretics such as Paracetamol.	3. Vital signs especially temperature was monitored hourly. 4. Number of bed linens were reduced. 5. All constrictive clothing's were removed from patient. 6. Prescribed antipyretics such as Paracetamol were served.	

Date/ Time	**Nursing Diagnosis**	**Objective/ Outcome Criteria**	**Nursing Orders**	**Nursing Intervention**	**Date/ Time**
19/10/2021 4:00 pm	Anxiety related to unknown outcome of disease condition.	Patient will be relieved of anxiety within 24 hours as evidenced by; a. Patient verbalizing that he is no more anxious. b. Nurse observing that patient is relaxed with cheerful facial expression	1. Provide continuous reassurance. 2. Explain all procedures to patient before performing. 3. Encourage patient to voice fears and all misconceptions. 4.Introduce patient to other patients on the ward who have suffered same condition and	1. Continuous reassurance was provided. 2. All procedures were explained to patient before performing. 3.Patient was encouraged to voice fears and all misconceptions were cleared 4. Patient was introduced to other patients on the ward who have suffered and recovering from the	20/10/2021 4:00 pm

			recovering to share experience 5.Provide diversional therapy 6.Encourage friends and relatives to visit regularly	same condition to share experience. 5. Diversional therapy (watching television) was provided. 6. Friends and relatives were encouraged to visit regularly.	

Date/ Time	**Nursing Diagnosis**	**Objective/ Outcome Criteria**	**Nursing Orders**	**Nursing Intervention**	**Date/ Time**
22/10/2021 3:40 pm	Activity intolerance related to increased	Patient will demonstrate an increased tolerance for activity within	1. Minimize environmental activities and noise.	1.Environmental activities and noise was minimized	23/10/2021 3:40 pm

	energy expenditure associated with persistent coughing	24 hours as evidenced by; a. Patient participation in activities of daily living. b. Nurse observing that patient is able to perform activities of daily living without exertion.	2. Organize nursing activities to allow for periods of uninterrupted rest. 3. Protect patient from exposure to irritants such as flowers and powder 4. Instruct patient to avoid taking too cold or hot foods/fluids 5. Assist patient to perform range of motion exercises in bed. 6. Assist patient in the performance of activities of daily living.	2. Nursing activities were organized to allow for period uninterrupted rest. 3.Patient was protected from exposure to irritants such as flower and powder 4.Patient was instructed to avoid taking too cold or hot foods/fluids 5. Patient was assisted to perform range of motion exercises in bed. 6. Patient was assisted in the performance of activities of daily living.	

Date/ Time	Nursing Diagnosis	Objective/ Outcome Criteria	Nursing Orders	Nursing Intervention		Date/ Time
23/10/2021 8:05 am	Deficient knowledge related to causes, signs and symptoms, treatment and complications of the disease condition.	Patient will obtain adequate knowledge about the disease condition (Asthma) within 12 hours as evidenced by; a. Patient being able to repeat the causes, signs and symptoms, treatment and complications of the disease condition	1.Assess patient's knowledge on condition 2.Educate patient from known to unknown 3.Educate patient on the causes, signs and symptoms, prevention and management of the disease condition 4.Encourage patient to ask questions 5.Answer with clear simple terms		Goal fully met as patient gives satisfactory information on diseases condition, by verbalizing the sign and symptoms, causes and treatment.	24/10/21 8:0pm.

			6.Welcome contributions from patient 7.Ask questions to assess his assumptions of information provided 8.Thank patient for his cooperation			

CHAPTER FOUR

IMPLEMENTATION OF PATIENT/FAMILY CARE PLAN

4.0 Introduction

This focuses on the actual administration of planned nursing care and activities given to Mrs A.G during hospitalization, preparation towards her discharge and rehabilitation as well as measures to ensure continuity of care at home in order to make the patient comfortable, avoid any complication and promote quick recovery (Carpenito, 1992).

4.1 Summary of Actual Nursing Care Rendered

First day of Admission

On 19th October, 2021, Mrs A.G was brought into the female medical ward on a wheelchair by a staff nurse, student nurse and relatives from the emergency ward. They were warmly welcomed and the relative (husband and daughter) was offered a seat and a simple bed was made for her. Patient's vital signs were checked and recorded as

- ✓ Blood Pressure – 130/70mmHg.
- ✓ Pulse – 105bpm.
- ✓ Temperature – 37.0.
- ✓ Respiration – 23cpm.

✓ SP02 – 90%

On arrival, an intravenous line was secured. All requested medications were cross checked and collected from the accompanied nurse. Tight cloths around the chest and waist were also loosened to enable proper chest expansion during respiration to promote effective breathing. Nearby windows were opened to ensure adequate ventilation and enhance breathing. Also Mrs A.G was encouraged to increase patient's fluid intake to loosen secretions.

Patient due medications were served at the emergency unit before the trans-out. Patient relatives were oriented to the ward and its annexes and they were reassured that Mrs A.G was in the hands of skilled and competent staffs and hence everything possible will be done to facilitate speedy recovery to her. Information about the patient particulars were recorded in the admission and discharge book, daily ward state and in the nurse's notes.

Mrs A.G was on the following drugs on arrival at the ward:

- IV Amoksiclav 1.2g tds x 1 day
- Caps Azithromycin 250 mg bd x 3
- IV Furosemide 80 mg stat then 40 mg bd x 1
- Salbutamol 5mg and Ipratropium 0.5 mg nebules qid x 24 hours

Around 4pm, patient complained of being anxious about the outcome of the disease condition so she was reassured that she was in the hands of competent health staff and appropriate measures will be instituted to manage her condition to help in her recovery. All procedures were explained to patient before they were performed. Patient was educated about the cause, signs and symptoms, prognosis and prevention of the condition (Asthma). Also, patient was introduced to other patients

on the ward who have suffered similar condition and are recovering. The patient was encouraged to talk freely about her fears and anxiety and to ask questions about her condition to gain insight. Patient was given the needed attention and her questions were answered in clear simple terms. Also, patient was engaged in a conversation and was encouraged to watch television to relieve her off anxiety

Second Day on Admission (20/ 10/ 2021)

On 20th October, 2021, Mrs A.G woke up around 5:30 am and was assisted to bath and brush the teeth after which she bathed using warm water.

Patient's bed linen was change and the bed dressed. She was served with porridge and patient was able to eat more than half of the quantity served. Her due medications were served and documented.

Mrs A. G's vital signs were checked and recorded as:

- ✓ Temperature 37.3 ^{0} C
- ✓ Pulse 96bpm
- ✓ Respiration 24cpm
- ✓ BP 119/81mm/Hg
- ✓ SPO2 91%

Around 8:40 am, patient was reviewed by the Dr. A.S who ordered for previous treatment to be continued and added the following medications; syrup Carbocysteine 15mls tds x 5 days, iv hydrocortisone 100mg bd x 24 hours and symbiotic inhaler 1 puff bd. The medications were

immediately collected from the pharmacy and its administration started as ordered. The Dr. A.S ordered for 2 hourly SPO_2 checking which were recorded over a 24 hours period as indicated in the table in appendix II.

Patient had rice and stew in the afternoon and ampesi with stew as supper. At 5:30 pm, patient vital signs were checked and recorded as;

- ✓ Temperature 39.2^0 C
- ✓ Pulse 97 beats per minute
- ✓ Respiration 26 cycles per minute
- ✓ BP 122/84mm/Hg
- ✓ SPO2 92%

At 5:30 pm, patient was therefore considered to have pyrexia so the following measures were instituted; Mrs. A.G was reassured that appropriate measures will be put in place to help reduce her body temperature. Procedures were explained to patient to relieve her of anxiety. Patient was tepid sponged and served with cold drink. Nearby windows were opened to ensure adequate ventilation and fresh air. IV Paracetamol 1g was served as a stat dose as prescribed and recorded to help reduce patient's temperature to normal. Vital signs especially temperature was checked for every 2 hours and recorded in the nurse's notes. At 7:30pm, patient body temperature recorded was 37.2^{o}C when checked with a thermometer and was documented in the nurse's notes. All due medications were served and recorded.

Third Day of Admission (21/10/2021)

According to the night nurse's report, patient could not sleep well throughout the night due to frequent coughing. She was placed in an upright position to reduce the cough and was made comfortable in bed. Her vital signs were checked and recorded as follows:

- ✓ Temperature 36.8^0 C
- ✓ Pulse 84 beats per minute
- ✓ Respiration 39 cycles per minute
- ✓ BP 120/70 mmHg
- ✓ SPO2 95%

She was served porridge with milk as breakfast. Daily ward rounds were conducted and the following drugs; tab prednisolone 30mg daily x 3 days, tab Vitamin B. Complex were added to patient's medications after which her relatives were reassured that cough is a sign and symptom of the condition and all measures would be put in place to reduce the frequency of the cough. This was done to allay their fears and gain their co-operation. A comfortable bed was made for patient to enhance sleep. She was nursed in a quiet room as visitors were restricted and volume of television set minimized. This was done to induce sleep. Her drugs were then served.

Around 11:50am, patient complained of chest pain which was suspected to be as a result of the persistent coughing. Patient was assessed for the degree of pain and the following management modalities instituted; patient was encouraged to splint the chest when coughing to help reduce the level of pain whilst coughing. Also, oral fluid intake was encouraged to help thin secretions so it can easily be expectorated. Warm compresses were applied to the chest to reduce pain and analgesics were served as prescribed to help subside the chest pain. Vital signs such as:

- ✓ Temperature-37^0 .2C
- ✓ Pulse-37 cpm,
- ✓ Respiration -37
- ✓ Blood Pressure-110/68
- ✓ SPO2 - 95%.

Fourth Day of Admission (22/10/2021)

At 8:00am, Night report indicated that patient's general condition was stable except the cough that was still there though not as persistent as it was the previous day. Patient's vital signs were checked and recorded as:

- ✓ Temperature 36.4^{o}C
- ✓ Pulse 98 bpm
- ✓ Respiration 36cpm
- ✓ BP 126/74mm/Hg
- ✓ SPO2 96%

At 9:40am, I observed that patient was quiet in bed and has not taken care of her personal hygiene as she routinely does every morning. The patient was diagnosed with activity intolerance which was due to increased energy expenditure associated with persistent cough. The following measures were put in place to ensure patient could tolerate activities. Environmental activity and noise were

minimized as well as organization of nursing activities to ensure uninterrupted rest. Patient was protected from exposure to irritants such as flowers and powder since this could worsen the cough and patient instructed to take in fluids frequently. Also, patient was instructed to avoid taking too hot or cold food/fluids since this could trigger cough. After all these, patient was assisted to perform exercises in bed to increase her activity level. On the routine ward rounds, I explained the patient state to the Doctor if any intervention will be given. I was asked to reassured patient that, everything is going to be fine by the intervention given.

At 5pm in the evening, patient had ground nut soap and fufu as supper, she was served porridge with milk as breakfast due medications were served.

Patient's vital signs checked and recorded in the evening were as follows

- ✓ Temperature 37.3^0 C
- ✓ Pulse 102 beats per minute
- ✓ Respiration 32 cycles per minute
- ✓ BP 120/60mm/Hg
- ✓ SPO2 97%

Fifth Day of Admission (23/10/2021)

Night report indicated that, the patient had a sound sleep. Family members who visited patient were happy because of the tremendous improvement in Mrs A.G's condition. Patient took rice porridge with milk and bread as served. During the morning rounds with the Doctor A.S, patient

looked cheerful and active as she interacted nicely with relatives and friends that came to visit in the morning.

Her personal hygiene was maintained and the vital signs such as temperature, pulse, BP, SPO2 and respiration were checked and recorded as 36.5^0 C, 92 bpm, 130/70mmHg, 97% and 36 cpm respectively. It was identified that despite education done at the early stages of the interaction, patient still needed education on certain areas such as causes/risk factors, treatment and prevention of Asthma. So the following measures were instituted to ensure patient had adequate education on Asthma;

The patient was educated on the need to adhere to treatment regimen. The patient was also educated on personal and environmental hygiene to ensure a healthy life.

Patient and relative's were also reminded of the causes, signs and symptoms, predisposing factors and the prevention of the condition and the need to report to the hospital early when symptoms such as cough, fast breathing, dyspnoea etc. manifest. Education on the need for continuing medication, personal hygiene, and checking of vital signs were documented into the nurse's notes.

Sixth Day of Admission (Day of Discharge)

According to the night nurses report and the patient herself, her night was very good without any interruptions. She woke up at 5:45am in the morning and attended to her personal hygiene. Her bed was straightened and she was made comfortable in bed after bathing. She was served with porridge and bread after and of which her due medications were served. Vital signs were checked and recorded as;

- ✓ Temperature 36.0^0 C
- ✓ Pulse 84 beat per minute.
- ✓ Respiration 19 cycles per minute.
- ✓ Blood pressure 100/70 mmHg
- ✓ SPO2 98%

During general ward rounds, she was discharged by the medical team lead by Dr. A.S after a thorough assessment and was asked to come on review on 28thOctober, 2021 at the OPD. Her discharge forms were confirmed by Dr. A.S after the ward rounds. Her final diagnosis and other necessary information were transferred into the admission and discharge book, daily ward book and on costing sheet, which was partly catered for by the national health insurance scheme and the rest paid by the patient.

Patient was enlightened on the need to come for review on the said date and the particular unit to report to. At exactly 2:00pm. She showed her appreciation to the entire staffs for the holistic care that was rendered to her. She ceased that opportunity to bid all patients in her cubicle and the hospital staffs goodbye. She was escorted from the ward at 2:15pm exactly. The bed linen was discarded and the mattress was disinfected with bleach solution 1:9 part of water. The entire bed was also cleaned and the lockers were checked and emptied from foreign matters.

4.2 Preparation of Patient and Family for Discharge and Rehabilitation.

Preparation of patient and family towards discharge started on the day of admission till the day of discharge. Even though patient and relative were anxious and worried about her hospitalization and the prognosis of asthma, they were assured that, her admission was a temporal base to give proper medical and nursing care.

Prior to discharge the patient and family were given education on the disease condition and the need to adhere to treatment regimen after discharge.

On the 23th October, 2021 during the general ward rounds, Mrs A.G was discharged home on the following drugs: Tab Prednisolone 30 mg daily x 7 days, Syrup Carbocysteine 15mls tds, Symbicort inhaler 1 puff PRN.

After settling their bills, patient and relatives were educated on the dosages, the adverse effects of drugs and the need to conform to the treatment regimen and were told of the date of review which was on Thursday 29th October, 2021. The date and time of discharge were entered into the admission and discharge book and the daily ward state.

On the ward, they were assisted in packing their belongings and did not leave anything in nurse's custody. I then accompanied them to the Hospital entrance for them to pick a car to their destination.

4.3 Follow-Up/ Home Visit/Continuity of Care

Home visit is the process whereby a health provider makes contact with a patient at his or her home in order to assess patient's environment for factors that may have contributed to his or her health problems, and to determine resources available in solving these problems (Quansah, 2015).

First Home Visit (21/10/2021)

The first home visit was made on the 21th October, 2021 whilst patient was still on admission. It was a special visit to help me know much about patient's living environment to identify areas on which patient and family education will be based on. It was made around 9:30am with patient's co-tenant who came to visit them in the morning.

On entering the house, I was welcomed into patient's house and seat was offered to me. Rapport was established between the family by introducing myself and the reason for the visit. An immediate observation was made on the environment and it was found to be clean. It was a compound house built with bricks and roofed with aluminium roofing sheet. The house is subdivided into sections of which they own one bed room with a living room and pouch where they prepare their food. I had the chance to enter patient room, it was a little bit crowded and the windows opened, I realize that some louver blades were broken and net torn. I advised the family to repaired broken louver blades and torn net. To prevent mosquitoes from entering the room and other pollutant.

They share bathroom and toilet facilities with other tenants. Their water supply is in the house. They have access to electricity supply from the Volta River Authority. Their refuse is gathered into a big bucket with lid and emptied every morning at a community refuse site. They were congratulated for their clean and healthy environment.

Second Visit (24/10/2021)

The objective of this visit was to assess whether patient adhered to the treatment regimen and also to identify if the health education that was given during hospitalization and discharge were effectively practiced by the patient.

I was happily welcomed into patient's house around 10:15 am. During my interaction with the patient, enquiry was made of any new complaint and general health of Mrs A.G and the family. There were no complaints as she looked very active and cheerful on observation. Again, I asked about the drugs and she was able to repeat the instructions as to how they are to be taken. The remaining drugs showed that she was taking them as prescribed. I reminded patient and relative of the review date and its importance to the recovery process. I advised the patient to continue her medication as indicated. She was also advised to get enough rest and eat a well-balanced diet to repair worn out tissue. I had an interaction with patient and family for some time and I informed them about my next visit with a community nurse, who will take over from me. I wished them all the best. They saw me off to board a taxi at 12:15 pm.

Day of Review (30rd October, 2021)

On 29rd October, 2021, patient and relative were met at the OPD of the Holy Family Hospital, Techiman. Patient looked well and cheerful. I accompanied them to the Medical Records office. After her records were verified, vital signs were checked and recorded by the nurses as follows;

- ✓ Temperature - 36.5^0C
- ✓ Pulse - 82 beats per minute
- ✓ Respiratory rate - 21 cycles per minute
- ✓ BP - 126/70 mm/Hg
- ✓ SPO2 - 98%
- ✓ Weight - 60.7 kg

Patient was seen by the doctor in the consulting room and upon the doctor's examination, she was found to be healthy. The patient made no new complains. Relative (Daughter) was asked to provide patient with balanced diet, protect patient against cold weather, smoke, and dust particles. Patient and the daughter were reminded of my third visit which will be my last visit and to terminate care. Patient and daughter were seen off to their home.

Third Home Visit (03/ 11/ 2021)

On the 3th November, 2021, a visit was made to patient's house to find out how patient was doing after review and to hand over patient to community health nurse for continuity of care. Upon reception and exchange of greetings, enquiry was made about the general condition of the patient. No new complains were made as patient's condition improved. Health education on the prevention of Asthma was emphasized and questions asked by the patient were answered precisely. Mrs E.M a community health nurse from the community was introduced the family and patient handed over to her for continuity of care. The community health nurse promised to continue care and patient's family also expressed their willingness to cooperate with her.

After some few discussions, permission was sought to leave. The family saw me off to board a taxi as we bid each other fare well.

CHAPTER FIVE

EVALUATION OF CARE RENDERED TO PATIENT AND FAMILY

5.0 Introduction

Evaluation is the interpretation of the effectiveness of nursing care based on the expected outcome. It involves comparing patient's health status with the goals and objectives of the planned care and determination of the patient's progress.

It is the final phase of updating the plan of the patient's care. Depending on the outcome, unmet goals are re-examined, modified and re-prioritized after a proper assessment for an effective nursing care to be rendered.

5.1 Statement of Evaluation

During patient's stay at the hospital many goals were set with their specific outcome criteria. They were aimed at providing patient with a holistic nursing care to enhance speedy recovery.

On the 19th of October, 2021, patient presented with difficulty in breathing. An objective was set to relieve patient of difficulty in breathing within 12 hours. In order to achieve this objective, nearby windows were opened for ventilation, patient was propped up in bed, and tight clothing were removed around chest especially. The objective was fully met on the 19th October, 2021 at 11:30pm.

On the same day, patient was anxious. An objective was set to relieve her anxiety within 24 hours. In order to achieve this objective; Continuous reassurance was provided, all procedures were explained to patient before performing, patient was encouraged to voice fears and all misconceptions were cleared, patient was introduced to other patients on the ward who have suffered and recovering from the same condition to share experience, diversion therapy (watching television) was provided and friends and relatives were encouraged to visit regularly. The objective was fully met on 19/10/21.

0n the 20th October, 2021, patient had high body temperature (38. 2^0 C). An objective was set to maintain a normal body temperature within 24 hours. In order to achieve this objective; Patient

was tepid sponged PRN, adequate ventilation was ensured by opening windows and putting on fans, vital signs especially temperature was monitored hourly, number of bed linens were reduced and all constrictive clothing's were removed from patient. Goal was fully met on 21/10/2021.

Also on 20th October, 2021, patient complained of chest pain. An objective was set to help relief the patient of chest pain within 24 hours. In order to achieve this objective; Patient was assessed for the level of pain using a pain rating scale of 0-10, head end of the bed was elevated and patient position changed frequently, patient was encouraged to splint chest and effectively cough while in upright position, oral fluid intake of about 3000 ml per day was encouraged and warm rather than cold fluids were offered, warm compresses were applied to patient's chest and prescribed analgesics were served. Goal was fully met on the 21th October 2021.

On 22th October, 2021, patient had general body weakness and hence could not tolerate activities. An objective was set to enable the patient to tolerate activities within 24 hours. In order to achieve this objective; environmental activities and noise was minimized, nursing activities were organized to allow for period uninterrupted rest, patient was protected from exposure to irritants such as flower and powder, patient was instructed to avoid taking too cold or hot foods/fluids and patient was assisted to perform range of motion exercises in bed. The objective was fully met on 23th October 2021.

On the 24th October 2021, patient and relative had less knowledge on disease condition. Objective set was fully met as patient could verbalize the causes, signs and symptoms, and prevention of Asthma and also applied some of the management skills they were thought.

5.3 Termination of Care

Interaction with Mrs A.G and family started on the 19th October, 2021 when she was admitted at the Male Medical ward of the Holy Family Hospital to the date of discharge which was 23th October, 2021. It continued to follow-up after discharge.

The termination was done in a suitable manner from the beginning of the interaction to prevent anxiety. The family was informed that, my interaction with them will come to an end after patient was handed over to a community health nurse.

After the discharge of patient, follow-up visits were made and patient was finally handed over to the community health nurse for continuity of care.

CHAPTER SIX

SISUMMARY AND CONCLUSSION

6.0 Introduction

6.1 Summary

Mrs A.G a 76 years old woman was admitted to the Male Medical Ward of the Holy Family Hospital on 19th October, 2021 on account of Asthma Patient spent six days on the ward.

Nursing care such as reassurance, maintaining patient's personal hygiene, checking of vital signs, feeding and administration of prescribed drugs were carried out successfully.

The treatments prescribed included analgesics, antitussives, antipyretics, bronchodilators, anti-inflammatory and antibiotics.

Nursing problems identified during admission were difficulty in breathing, chest pain, high body temperature, general body weakness and less knowledge on disease condition and anxiety.

Objectives were set and nursing orders also set and implemented. The goals set were fully met due to good nursing management, medical care and total patient and family cooperation.

During admission, health education was given to patient's family on feeding (diet), oral care (personal hygiene), good environmental hygiene as well as prevention of Asthma. Mrs A.G was discharged on, 24th October, 2021. Patient and relatives were advised on the need to continue and complete her treatment regimen and to come for regular review.

A follow-up care was rendered and patient was finally handed over to a community health nurse to ensure continuity of care.

6.2 Conclusion

This study has enlightened me and broadened my understanding and practices of individualized nursing care. The experience gained will help me to offer a comprehensive nursing care to other patients in any hospital and can be extended to the community as a whole.

This study has enabled me put into practice all that I have learned during my training as a student nurse. It has also enabled me understand family attitude towards illness and behaviour of individual when they fall sick.

Finally, I conclude that all patients should be given such special and individualized care to reduce recurrence of disease. It will also help to reduce morbidity and mortality rates and promote short stay in the hospital.

APPENDIX I

Observation of Vital Signs Mrs E.M

Date	**Time**	**Temperature in degree Celsius**	**Respiration in cycles per minute**	**Pulse in beats per minute**	**Blood pressure in mm/HG**	**Oxygen saturation value**
19/10/21	9 :25am	37.0	23	105	130/90	90%
	1:25pm	35.6	21	89	119/81	96%
	5:25pm	35.8	24	96	128/99	95%
20/10/21	6:00am	37.3	24	96	119/81	91%
	12:30pm	39.2	26	97	122/84	95%
	7:30pm	36.0	24	97	110/70	96%
21/10/21	6:00am	36.8	39	84	120/70	95%
	12:30pm	36.2	23	97	110/70	98%
	7:30 pm	35.0	37	98	110/68	97%
22/10/21	6:00 am	36.0	36	98	126/74	96%
	12:30pm	36.4	18	97	120/70	97%
	7:30 pm	37.3	32	102	120/60	95%
23/10/21	6:00 am	36.5	36	92	130/70	96%
	12:30pm	35.6	19	96	110/80	95%
	7:30pm	35.0	21	95	120/100	96%

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