HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE

BEREKUM

A PATIENT/FAMILY CENTERED NURSING CARE STUDY ON BRONCHOPNEUMONIA

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

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PREFACE

Nursing as a profession today has gone through a lot evolution through time to be the profession it is today. In the past, nursing was not tough; it wasn't until the 1800's that nursing became an organized practice. During the Crimean War, Florence Nightingale and 38 volunteer nurses were sent to the main British camp in Turkey. Nightingale and her staff immediately began to clean the hospital and equipment and reorganized patient care. Nightingale pushed for reform of hospital sanitation methods and invented methods of graphing statistical data. Nightingale's work led to drastic changes in army medical care, the establishment of an Army Medical School and medical records, and ignited the growth of nursing as an organized profession. For these contributions, Nightingale is widely accepted as the founder of nursing.

The nursing profession gained much recognition and support from civilians during this time, at long last realized as the tremendous asset to medical care that nurses truly are. In the early 1900's, nursing education was received primarily from hospitals rather than colleges or universities. The training of nurses in diploma program, licensing of nurses, specialization of hospitals and diagnosis, and advance degree programs and scientific and technological development are been offered today. This has aided to improve the quality of health services being delivered by the use of the nursing process. This involves the designation of nursing strategies and interventions required to prevent, reduce or eliminate patient/family health problems. Nursing care has evolved from just caring for the sick and the dying, to an era of assisting people who seek health guidance and counselling, as well as promoting the health of individuals, their families and the entire community. There has also been an extension of care to the sick person's family and community, at large, in all aspects of health care

The patient/family care study forms part of the assessment of every final year student. It is a prerequisite for every candidate in order to partially fulfill the award of diploma certificate in Registered General Nursing by the Nursing and Midwifery Council of Ghana. It affords the

student the opportunity to develop his/her skills for future use. The patient/family care study is a detailed account of the nursing care rendered to the patient and family from the day of admission through the day of discharge, review and follow up visits. The comprehensive care rendered was made possible by the employment of skills and knowledge in such disciplines as psychology, public health nursing, medical nursing, surgical nursing, pharmacology and nutrition and dietetics to meet the patient/family's needs and the community at large.

This study helps the student nurse to apply the knowledge and skills acquired throughout his/her studies. It also helps the student nurse to have a wide knowledge in behaviors and attitudes of human beings and also builds the interpersonal relationships of the student. The study serves as a reference paper for other student nurses and qualified health personnel who may be interested in its content.

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INTRODUCTION

This patient/family care study was done on Mr. E. A, a 46-year old man who was diagnosed of Bronchopneumonia. He was admitted to the Males ward of Methodist Hospital- Wenchi, on Tuesday 8th November, 2022. He was admitted in a conscious state with the following complains; of dyspnea, headache, cough, chest pains, kneel pain, fever and easily fatigue and was on admission for 5 days. The medications prescribed for his treatment included analgesics, antibiotics and cough mixture:

1. Tablet Paracetamol 1g
2. Tablet Azithromycin 500mg
3. Amoxicillin + Clavulanic Acid inj 250mg
4. Salbutamol Nebules 2.5mg, 5mg stat
5. Syrup Simple Lintus 15mls

Diagnostic investigations conducted include chest x-ray, complete blood count and erythrocyte sedimentation rate. Patient and family were educated on the condition (pneumonia). I choose to study on Mr. E. A condition because his wife looked worried and coupled with my desire to care for the patient/family and to know about the condition. He was discharged on Saturday (12th November, 2022) upon improvement without any sign of complication at the time of discharge. This study entail's six (6) chapters which are;

1. Assessment of Patient/Family.
2. Analysis of Data.
3. Planning of Patient/Family Care.
4. Implementation of Patient/Family Care Plan.
5. Evaluation of Care Rendered to Patient/Family.
6. Summary and Conclusion.

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CHAPTER ONE

ASSESMENT OF PATIENT AND FAMILY

1.0 Introduction

Assessment is the process of gathering information about a patient's physiological, psychological, sociological and spiritual status (Lewis, Dirksen, & Heitkemper, 2014) Assessment is the plan of care that identifies the specific needs of person and how those needs will be addressed by the health system or skilled nursing facility. Health assessment is the evaluation of the health status by performing physical exams after taking health history. It is done to detect diseases early in people that may look and feel well. The information or data can be collected through health history, physical examination, laboratory investigations and interviewing of patient and family members. Information was gathered from patient, his family, his folder, his laboratory results, the medical staff and relevant textbooks. Analysis is made from the information obtained and appropriate nursing interventions are put in place to solve the problems noticed. Assessment entails the patient's particulars, family medical/surgical history, and family socio-economic history, patient's lifestyle and hobbies, patient's developmental history, patient's past medical/surgical history and the present medical/surgical history of the patient, literature review and validation of data.

1.1 Patient's particulars

According to Meyer (2015) patient particulars are detailed information about a person or an event, especially when officially recorded. It includes patients, name, address, house number, date of birth, etc.

Mr. E. A, a 46-year-old man was born on 5th of May, 1976 at Nkonsia Wenchi to the late Mr. S. O, who is a farmer and Maame A S, also a farmer both parents are natives of Wenchi in the Bono region. They are seven children of their parents and he is the third born. He comes from

Nkonsia Wenchi Bono region in a house with number NK- AS- 3C- 092 near the Methodist church. He is not married. His next of kin is his younger sister O B. He is a mason. Mr. E A. stop schooling at junior high school due to financial problem. He is an Akan by tribe and speaks Twi and a little English. He weighs about 62kg, 1.7m tall and fair in complexion. He is Christian by religion and a member of the Roman Catholic Church. He has no physical impairment or disabilities.

1.2 Family's Medical History

According to Mr. E. A., his grandparents and parents are deceased. They died of old age. His siblings are alive and healthy. There are no identifiable hereditary disorder like diabetes mellitus, asthma, sickle cell, epilepsy nor any mental disorders in the family. However, the relatives present during his history taking said that, periodically, they do suffer some ailments like malaria, headache, fever and abdominal pains which are treated by self-medication (using both over-the-counter drugs and traditional medicines) but if symptoms persist, they report to the hospital. This is the second time he is being hospitalized. The first instance was this same condition (pneumonia) but he was managed, he was looking healthy so the doctor discharge him for about three to four years now he has not experience any symptoms until recently 7th November, 2022 that he started experiencing dyspnea, headache, and pains and was brought to the hospital on the 8th November, 2022 as his second time. The source of medical treatment for Mr. E A's family are both orthodox and herbal medicine. There are no known allergies in the family.

1.3 Socio-Economic History

Mr. E. A's has a very good relationship and cohesion. Socially he is not noted for smoking or drinking alcohol. He revealed that, he is not a member of public service persons thus depends solely on the income earned from his mansion work. Family members are always willing to support each other in times of financial hardships. Mr. E. A. doesn't depend much on his extended family for financial support but rather depends on mansion work income. These are what they mostly depend on and sometimes too borrowed money from some social group that he joins. He's well known for his enormous participation in religious activities, his kindness and generosity. Patient said they have no taboos in their family, rather they conform to the

rules and believes of the Christian religion. He also indicated that the National Health Insurance Scheme cover most of his bills whenever he seeks for treatment at the hospital. Patient worships at the Roman Catholic Church in Nkonsia Wenchi. He mostly attend church on Sundays which serves as their off-duty day at work. Patient lives in his father's house built with blocks and roofed with roofing sheet. They have access to toilet facilities and pipe born water. He has no history of the use of hard drugs such as cocaine. Patient becomes tired due to the amount of energy he spent to do his to work (masonry)

1.4 Patient's Developmental History

Development refers to the process of growth and differentiation which involves cognitive, psychosexual and psychosocial processes (Weller, 2014).

Maturation is the process of becoming completely developed mentally or emotionally (Weller, 2014)

Growth is the progressive development of a living thing, especially the process by which the body reaches its complete physical development (Weller, 2014).

The developmental history was given by patient himself as told by his mother. Mr. E. A indicated that, his mother went through normal pregnancy of nine months gestation without any pregnancy associated disorders and had normal delivery with the help of traditional birth assistance (TBA) in Nkonsia. He was born without any congenital abnormality such as cleft lip or palate, hydrocephalous and undescended testis (cryptorchidism) and wasn't immunized against the childhood killer disease. Mr. E. A was breastfed for a period of six months before he was introduced to supplementary foods like porridge. He went through a normal developmental milestone. This includes sitting up at the 7^{th} month, crawling at the 10^{th} month, walking, talking and running between the ages of one and three years old. Mr. E. A at age

sixteen (16), begun to experience secondary sexual characteristics such as deepening of voice, broadening of chest and facial hair appearance.

Erikson's theory of psychosocial development in 1964 describes the human life cycle as a series of eight ego developmental stage from birth to death. The theory focuses on psychological task that are accomplished throughout the life cycle. In respect to patient's age and psychosocial behavior, he falls in the aged group where there is conflict between Generativity versus Stagnation in the Erikson's theory of psychosocial development.

As patient is 46years he falls at the seventh stage Erikson's theory of psychosocial development that is, Generativity versus Stagnation and is characterize by the need to give others. Generativity is a concern for other people, especially for those younger than us. It can be done through various ways including parenthood, volunteering, teaching and mentoring, neighborhood and community activism. When these things are not met then we say a person is stagnant. Patient is in generativity because he always wants to give back to the society through supporting and raising the children in the family. He is also fully involved in community activities and organizations. He feels stagnant and unproductive when he fails in contribution of his part.

1.5 Patient's Lifestyle and Hobbies

Lifestyle is the pattern of daily living that an individual develops (Weller, 2014). Hobbies are activities one does for pleasure when he/she is not working (Hornby, 2012).

According to my patient Mr. E. A., he usually wakes up around 4:00 to 5:00am. He pray, brushes his teeth with brush and tooth paste. He empties his bladder and bowel, according to the patient, even though he empties his bladder and bowel every morning, it depends on the type of food eaten and amount of fluid taken within the day. He takes his bath and usually prefers warm bath. After that, he takes some porridge with sugar, sometimes with bread and

go to work (masonry). He leaves the house around 6:30am but do not have the specific time he returns home. Patient does not go to the work on Saturdays and Sundays since he uses Saturdays to attend funerals, naming ceremonies and other social gathering and Sundays to attend church, rest and spend time with his brothers or friends. He also likes to chat with close friends. His favorite food is 'banku' with okra 'okra stew'. Patient has no allergy to food or drug. He takes his bath and retires to bed around 9:00pm in the evening, says a short prayer then sleeps.

1.6 Patient's Past Medical History

According to the patient (Mr. E. A), he never experienced any childhood illness like diphtheria whooping cough, tuberculosis, tetanus, measles and poliomyelitis and has not identified any allergy to drugs, animals or insects. He revealed that he usually suffers from minor ailments such as diarrhea, constipation, headaches and common cold which he usually treats with traditional medicines and sometimes with over-the-counter medications. When symptoms persist or becomes worse, he visits a nearby hospital or clinic. Mr. E. A said he had never been involved in an accident. He has no physical disability due to illness. His first hospitalization was about four years ago when he experiences dyspnea, headache, pains and went to Wenchi Methodist Hospital for treatment. He became well and was discharge without any complains. Mr. E. A also indicated that he never goes for health check-ups unless his ailment becomes difficult to treat with traditional medicine and over the counter medications.

1.7 Present Medical History

Patient was apparently well prior to presentation of pneumonia symptoms until the day before he was admitted. According to my patient, he started developing an unproductive cough and difficulty in breathing and the next day symptoms were increasing, He was then rushed to the Methodist hospital- Wenchi. During interview with patient by the doctor (Dr. U. I) on duty at the OPD he made mention of the signs and symptoms which were exhibited by him such as dyspnea (difficulty in breathing), anorexia (loss of appetite), chest pain, easily fatigue, dizziness and

cough(productive). Patient was then admitted to the male's ward reviewed and diagnosed of Bronchopneumonia, He was given the needed treatment on five days admission at the Males Ward, which started from 8th November to 12th November, 2022. The admission was to allow the Health team for further investigations to support diagnosis and proper management.

1.8 Admission of the Patient

Admission of a patient means allowing and facilitating a patient to stay in the hospital unit or ward for observation, investigation and treatment of the disease he/she is suffering from (Potter & Perry, 2016)

On 8th November, 2022 at 9:36am, Patient (Mr. E A) was admitted into the male's ward through outpatient department review by Dr. U I, accompanied by his brother and outpatient department nurse on a wheel chair. They were warmly welcomed and put on an already prepared bed with the head of the bed lifted in a semi fowler's position to ensure proper expansion of the chest to facilitate breathing. Introductions were made whereas patient is in bed because he was a little weak and having difficulty in breathing but he was conscious. The patient was nebulized with salbutamol 5mg stat to ensure patency of the air way. I then collected his folder number from the accompanied nurse, since they deal with computer base system, I checked on the system to view patient name, diagnosis and treatment. I mentioned the patient name to verify if it was him on the system and if he was the right patient. I reassured them that, all the necessary nursing and medical intervention would be carried out to restore his to normal health. His particulars such as name, age, address, religion, allergies, and next of kin has already been entered at the OPD level. I confirmed them with the patient and his brother. All necessary sheets like medications; laboratory and temperature sheets were filled accordingly. His vital signs were checked and recorded as follows;

Temperature	36.5^{o}C
Pulse	87 bpm

Respiration 28 cpm

Blood pressure 115/76mmHg

Weight was checked and recorded as 62kg

SpO2 72%

General observation on patient including head, hair, eyes, mouth, ears, skin and mental state were found normal except respiratory distress as indicated as 28 cycles per minute. On regards to the signs of the disease of the patient, he exhibited cough (productive), chest pain on cough, headache, kneel pain and difficulty in breathing.

Patient's relatives were oriented to the ward and its annexes, important hospital routines and policies such as visiting hours, ward protocols and other important information's were made known to the relatives. The relatives were told the things the patient will need during his admission period.

Patient was put on the following drugs;

1. Tablet Paracetamol 1g tds for 3 days
2. Tablet Azithromycin 500mg od for 3 days
3. Amoxicillin + Clavulanic Acid inj 250mg bd for 48hours
4. Salbutamol Nebules 2.5mg, 5mg stat for 24hours
5. Syrup Simple Lintus 15mls tds for 7days.
6. Oxygen 1 litre

All laboratory test and other investigations have already been done. These include;

1. Chest X-ray.
2. Sputum for acid fast bacilli
3. Full blood count.

4. Erythrocyte sedimentation rate (ESR)
5. Blood film for malaria parasites

All drugs were administered as prescribed and charted in the drug administration chart and recorded in the nurse's notes. During the admission process, both patient and relatives were assured of early recovery and discharge and that is if they are going to comply with the treatment regimen and other nursing procedures. Both patient and relatives are constantly educated on how to administer drugs to patient when discharged. Patient and relatives were educated on how to prevent infections, these includes; routine hand washing after visiting the toilet, returning home from social gatherings like church and funerals.

I then introduced myself again to patient and relatives as a student of Nursing and Midwifery Training College Berekum and sought for his consent to take him in writing my care study. I further explained that the care study is a requirement by the Nursing and Midwifery Council of Ghana in order to be awarded license to practice as a nurse. I promised patient and relatives that, all information that will be made available to me will be kept confidential. Also, patient was made aware that he could withdraw at any time if he is not comfortable continuing the interaction. He agreed and gave me his verbal consent. My patient promised to give me his maximum cooperation. I then thanked him for accepting to be my patient for the care study.

1.9 Patient's Concept of Illness

According to patient (Mr. E A) he does not know the cause, signs and symptoms, treatment and prevention about the disease condition. He believed it is not of spiritual cause and again verbalized that anyone can fall sick and was hoping to recover sooner and then later with prayers and the help of the health team.

1.10 Literature Review

Literature review is a written information about a specific disease condition, the literature review condition will be discussed under the headings below.

1. The description/definition of Pneumonia
2. Incidence of Pneumonia
3. Causative organisms Pneumonia
4. Mode of spread of Pneumonia
5. Risk factor of Pneumonia
6. Pathophysiology of Pneumonia
7. Diagnostic Investigation of Pneumonia
8. Signs and symptoms of Pneumonia
9. Medical treatment of Pneumonia
10. Standard Nursing intervention of Pneumonia
11. Prevention of Pneumonia
12. Complication of Pneumonia.

Anatomy and Physiology Overview

According to Smeltzer, Bare, Hinkle and Cheever (2012), the respiratory system is composed of the upper and lower respiratory tracts. Together, the two tracts are responsible for ventilation (movement of air in and out of the airways). The upper respiratory tract, known as the upper airway, warms and filters inspired air so that the lower respiratory tract (the lungs) can accomplish gas exchange. Gas exchange involves delivering oxygen to the tissues through the bloodstream and expelling waste gases, such as carbon dioxide, during expiration. The respiratory system works in concert with the cardiovascular system; the respiratory system is responsible for ventilation and diffusion, and the cardiovascular system is responsible for perfusion.

Anatomy of the Respiratory System

Upper Respiratory Tract Upper airway structures consist of the nose, sinuses and nasal passages, pharynx, tonsils and adenoids, larynx, and trachea.

Lower Respiratory Tract

The lower respiratory tract consists of the lungs, which contain the bronchial and alveolar structures needed for gas exchange.

Lungs

The lungs are paired elastic structures enclosed in the thoracic cage, which is an airtight chamber with distensible walls, the two lungs, one lying on each side of the midline of the thoracic cavity. They are cone-shaped and are described as having an apex, a base, a costal surface and medial surface.

The apex is rounded and rises into the root of the neck. The base is concave and semilunar in shape and is closely associated with the thoracic surface of the diaphragm.

The costal surface is convex and is closely associated with the costal cartilages, the ribs and intercostal muscles.

The medial surface is concave and has roughly triangular-shaped area called the hilum**,** at the level of the 5^{th}, 6^{th} and 7^{th} thoracic vertebrae. Structures which form the root of the lung enter and leave at the hilum.

The right lung is divided into three distinct lobes: superior, middle and inferior. The left lung is smaller as the heart is situated left of the midline. It is divided into only two lobes: superior and inferior. The lungs function by introducing oxygen by a process called diffusion into blood and also excreting the waste product of metabolism (carbon dioxide) (Smeltzer, Bare, Hinkle, & Cheever, 2012)

Definition of Pneumonia

Pneumonia is an acute inflammation of the lung parenchyma, causing impaired gas exchange. It is usually caused by microorganisms and chemicals which affect the lungs and cause fluid and blood cells to leak into the alveoli. (Wolters, 2016). Pneumonia is a form of acute respiratory infection that affects the lungs and bronchus (WHO, 2013).

Pneumonia is an inflammation of the lung parenchyma caused by various microorganisms, including bacteria, mycobacteria, fungi, and viruses (Smeltzer, Bare et al, 2012). It is usually caused by infection with viruses or bacteria and less commonly other microorganisms, certain drugs and other conditions such as autoimmune diseases. When an individual has pneumonia, the alveoli are filled with pus and fluid, which makes breathing painful and limits oxygen intake. The area of the involved lung is said to have undergone consolidation.

Types of Pneumonia

Pneumonia is subdivided into two main type based on the anatomical position. They are lobar pneumonia and Bronchopneumonia.

Bronchopneumonia

This is a less dramatic form of Pneumonia but more prevalent than Lobar Pneumonia. The area affected is usually smaller than in the lobar type. The inflammation is localized in or around the bronchi and causes the lungs to be spotted or patched with clusters of infected tissue. It is mostly caused by organisms like streptococcus, influenza and infections which are present in the upper respiratory tract (URT), travels down to infect the terminal bronchi (Smeltzer, Bare, Hinkle, & Cheever, 2012).

Lobar pneumonia

Lobar Pneumonia a segment or the entire lobe of the lung may be affected. When both lungs are affected the disease is called double or bilateral Lobar Pneumonia. It is most frequently caused by Pneumococcal and Klebsiella pneumonia. Others include Staphylococcus aureus, Streptococcus and viruses like influenza and adenovirus.

Incidence of Pneumonia

According to Smelter and Bare (2012), pneumonia can occur in the following instances

1. Pneumonia is present among immune compromised persons such us those with acquired immune deficiency syndrome (AIDS).
2. It is common among alcoholics and malnourished children.
3. It is also common in people living in an overcrowded area.
4. It occurs in both sexes, males and females.

Classification of Pneumonia

According to Kumar and Clark (2016) pneumonia has been classified according to many ways as follows;

a. **Based on location.**

. 1. Bronchopneumonia.

This is the consolidation occurring around the bronchioles. It is a generalized pneumonia usually affecting both lungs in the distal airway and alveoli. Infections spread from the upper part of the respiratory tract where it scatters throughout both lungs. It is mostly caused by staphylococci, pneumococci and Hemophilus influenza.

2. Lobar pneumonia.

It is the pneumonia consolidation involving one or more lobes of the lungs. It is mainly caused by pneumococci; however, it can be caused by streptococci as well.

b. **Based on types.**

1. Primary pneumonia.

It results directly from inhalation or aspiration of a pathogen such as virus or bacteria. It involves pneumococci and viral pneumonia.

2. Secondary pneumonia.

It may follow initial lung damage from a noxious chemical or may result from haematogenous spread of bacteria from a distant area.

3. Aspiration pneumonia.

It results from inhalation of foreign bodies such as vomitus or food particles into the bronchi.

c. **Based on microbial etiology**

It can be due to

1. fungal
2. viral
3. bacterial
4. protozoa

Causes of Pneumonia.

The causes of pneumonia are

1. viral
2. bacterial

a. Viral causes

Examples of viruses; influenza, adenovirus and the virus which causes whooping cough, measles virus, chicken pox virus and herpes simplex virus.

b. Bacterial causes

Example of bacteria which causes pneumonia are streptococci, staphylococci, pneumococci and mycobacterium tuberculosis. (Smeltzer & Bare, 2012)

Predisposing Factors

The predisposing factors are as follows

1. Overcrowding or congestion in a room
2. Exposure to cold
3. Smoking
4. Air pollution
5. Alcoholism
6. Poor ventilation (Smeltzer & Bare, 2012)

Epidemiology

Pneumonia is the single largest cause of death in children worldwide. Every year, it kills an estimated 1.2 million children under the age of five years, accounting for 18% of all deaths of children under five years old worldwide. Pneumonia affects children and families everywhere, but is most prevalent in South Asia and sub-Saharan Africa (WHO, 2013).

Pneumonia and influenza are the most common causes of death from infectious diseases in the United States. Together they account for nearly 60,000 deaths annually and rank as the eighth leading cause of death in the United States. The condition is common among the following people;

1. It is common in patients with suppressed immunity.

2. Patient undergoing radiation therapy
3. It is prevalent in patient with respiratory disease and respiratory malfunction
4. Elderly patients are highly affected because of depression of cough and glottis reflex.
5. People who smoke cigarette are highly affected and (90%) of cigarette smokers die as a result of pneumonia every year which is due to disruption in both mycociliary and macrophage activity.
6. People in overcrowded places and areas with poor environmental hygiene

Causative Organism

Pneumonia is caused by a number of infectious agents, including viruses, bacteria and fungi. The most common are:

1. Bacteria**:** *Streptococcus pneumoniae* – the most common cause of bacterial pneumonia in children;
2. *Hemophilus influenzae* type b (Hib) – the second most common cause of bacterial pneumonia; (WHO, 2013)
3. Viral: Respiratory syncytial virus is the most common viral cause of pneumonia; in infants infected with HIV, *Pneumocystis jirovec*is one of the commonest causes of pneumonia, responsible for at least one quarter of all pneumonia deaths in HIV-infected infants. (WHO, 2013)
4. None microorganism causes include radiation, ingestion of chemicals and aspiration of gastric secretions, food or fluids (aspirated pneumonia) and retention of secretions which occurs in the mostly elderly people (Hypostatic Pneumonia).

Risk Factor

According to Smelter, Bare et al, (2012), certain groups of people are more at risk for developing bronchopneumonia. Risk factors include:

1. Being age 2 or younger and being 65 years old or older
2. Having a lung disease, such as cystic fibrosis, asthma, or chronic obstructive pulmonary disease (COPD)
3. Having HIV/AIDS
4. Having a chronic disease, such as heart disease or diabetes
5. Having a weakened immune system, which may be caused by chemotherapy or use of immunosuppressive drugs
6. Being on a ventilator
7. Smoking
8. Patient with decrease level of consciousness
9. Heavy alcohol use
10. Trouble coughing or swallowing
11. Being malnourished
12. Overcrowding

Mode of Transmission

Pneumonia can be spread in a number of ways. The viruses and bacteria that are commonly found in a patient's nose or throat can infect the lungs if they are inhaled or aspirated. They also spread via air-borne droplets from a cough or sneeze.

Pathophysiology

Lung infections create problems in both ventilation and gaseous exchange. Most inflammation reaction initiated by an infectious organism in the lung occurs in the alveoli and produce exudates; pus and/or fluids. These exudates in turn interfere in both movement and diffusion of oxygen and carbon dioxide. White blood cells mainly neutrophils, also migrate into the alveoli, so that the lung segments assume a more solid structure as the spaces containing air becomes fluid-filled. This results in inadequate lung ventilation because of

secretions from mucosal oedema and bronchial spasm. These conditions cause partial occlusion of the bronchi or alveoli, producing a drop in the alveoli oxygen tensions. Venous blood coming into the lungs thus are not efficiently oxygenate and goes out of the lungs to the heart. The mixing of oxygenated and deoxygenated blood eventually results in arterial hypoxemia; state of low blood oxygen. Hypoxemia results in symptoms such as shortness of breath, coughing or wheezing, headache, rapid heartbeat, confusion and disorientation, and blue colouration to the skin, lips, and fingernails. It is significant to state that, fever occurs in pneumonia as a response to the inflammatory reaction caused by the presence of a pathogen in the lungs (Smeltzer et al., 2012; Webb & Gattinoni, 2016)

Clinical Manifestations

Symptoms can develop gradually or suddenly. Viral bronchopneumonia may initially present with flu-like symptoms, but progress in a few days. Symptoms of bronchopneumonia include:

1. Fever and chills
2. Cough unproductive cough from onset and latter productive
3. Shortness of breath
4. Wheezing and crackling
5. Chest pain
6. Rapid breathing
7. Sweating
8. Anorexia
9. Increase in the pulse rate
10. General malaise
11. Headache
12. Elevation in leukocyte count

Diagnostic Investigation

1. Proper history taking and physical examination is conducted to assess for the presence of fever, crackling or wheezing etc.

2. Complete Blood Count (CBC) indicates an elevated number of white blood cells.

3. A chest X-ray is one of the best ways to diagnose this condition. This test uses electromagnetic radiation to create a picture of the lungs and chest, which can allow the doctor to locate areas that are affected by bronchopneumonia.

4. Erythrocyte Sedimentation Rate (ESR) to assess the level of inflammation

5. A computed tomography (CT) scan produces a picture similar to an X-ray but in more detail. This will tell the doctor where the infection is occurring in your lungs specifically.

6. A sputum culture tests a sample of mucus from your lungs to determine the cause of the infection.

7. A bronchoscope involves putting a camera down your throat to look at your bronchial tubes. This can be done to determine if there are other factors causing your bronchopneumonia.

8. The doctor may order a pulse oximetry. This test requires you to put a sensor on your finger and measures the amount of oxygen in your blood. The results of this test can tell the doctor the extent or severity of the infection and its effect on your ability to absorb oxygen.

Medical Treatment

Pneumonia is treated with antibiotics. Most cases of pneumonia require oral antibiotics for treatment. Hospitalization is recommended only for severe cases of pneumonia, and for

all cases of pneumonia in infants younger than two months of age. Below is the treatment modality for pneumonia;

1. Antibiotic such as, gentamycin, cefuroxime to combat infections
2. Cough mixtures such adult cough syrup is given to relief cough.
3. Analgesics and antipyretic such as Paracetamol 1g tid daily are given for pain and pyrexia
4. Anti-inflammatory such as diclofenac for pain and to reduce inflammation
5. Intravenous fluid 3 to 4 liters may be given daily to hydrate the patient

   Other non-pharmacological therapies include;
6. Patients who are hypoxemic are given humidified oxygen.
7. Respiratory measures such as endotracheal intubation and mechanical ventilation can be done.

Nursing Management

With reference to Kumar and Clark (2016), the nursing management of pneumonia can be carried out under the following headings:

Psychological care

1. Reassure patient that she/he in the hands of competent health workers who are willing to take care of him/her.
2. Educate patient and family on the condition and allow them to ask question and answer them tactfully
3. Introduce patient to other patients who had the same condition but have recovered successfully.

All these are done to allay fears and anxiety of patient and for the patient to have confidence in the staff.

Observation

1. Observe patient for signs and symptoms of respiratory distress.
2. Check and record vital signs such as blood pressure, pulse, respiration and temperature accurately to check whether patient's condition is improving or deteriorating.
3. Monitor intake and output chart and observe the site for swelling or dislodgement of the needle if patient is on intravenous infusion.
4. Observe for effects and side effects of medication and report any abnormalities for measures to be taken.

Position

1. Put patient in a semi- fowler's position supported with pillows at the back to facilitate smooth and effective breathing.
2. Change position frequently to prevent patient from developing pressure sores and improve proper circulation of blood.

Maintenance of Airway

1. Change the patient position every two hours to prevent pooling of secretions.
2. Encourage patient to do deep breathing exercise.
3. Where patient is child and unable to cough sputum out, oropharyngeal suction is done to clear the airway. This is done with care in order not to introduce foreign substance into the pleural cavity.

Nutrition

1. Patient must be encouraged to take in fruit and fluid (about 3-4litres daily should be given) to thin secretions and facilitate breathing and also avoid constipation.
2. If patient experiences dyspnea, liquid diet is more preferable to avoid chocking.
3. A pleasant environment should be provided during meal time.

4. More protein, vitamins, mineral salt and carbohydrate meal are served to help in fighting infection and enhancing worn-out tissue repair. Vitamins and mineral salts diet must be encouraged to build patient's immunity. Foods rich in protein such as fish and eggs must be encouraged to repair worn out tissues.

Medication

1. Drugs prescribed by the physician must be administered as prescribed and documented.
2. During drug administration, the rights of drug administration must be observed, that is right patient, right drug, right dose, and right time.
3. Do not place drugs at patient's bedside to prevent him/her from taking overdose

Personal Hygiene

1. Bed linen and clothing's should be changed as soon as it is soiled.
2. Patient should be given water to rinse mouth after coughing out sputum due to unpleasant taste of the sputum.
3. Patient should be bathed twice daily to maintain personal hygiene, improve circulation and to induce sleep.
4. Care of the mouth must be done at least twice daily to stimulate patient's appetite
5. Care of hands feet must be done when necessary to prevent harboring of microorganisms
6. Mouth care should be given regularly to combat dryness or cracking of the lips and infections in the mouth.

Exercise

1. Engage patient in passive exercise as condition permits to improve circulation.
2. Breathing exercises can be done to loosen and mobilize secretions.

Elimination

1. Bedpan must be given promptly on demand to prevent patient from soiling himself/herself.
2. Monitor patient bowel movement and assess patient for any abnormality
3. Patient must be catheterized to help him/her maturate if cannot.

Rest and Sleep

1. A comfortable bed free from creases and crumps must be prepared for patient to prevent him from developing pressure sores.
2. A quiet environment must be ensured by asking other patient to communicate in low tones and also keep volumes of television and radio sets low.
3. Encourage patient to rest and remain in bed to avoid exertion and relief symptoms.
4. Warm bath and warm drinks may be given to induce sleep.
5. Patient must be nursed in a well-ventilated room and quiet environment.
6. Temperature is controlled by tepid sponging to provide comfort.
7. Plan and carry out care in such a way that the patient's resting time will not be interrupted.

Health Education

1. Educate the patient and family on the disease condition so that they can prevent any complication.
2. Educate on the need for follow-up and treatment regimen of antibiotics.
3. The patient should be taught coughing and breathing exercise.
4. Educate on the need to avoid sleeping directly under fans but rather should open windows for ventilation.
5. Educate patient on the avoidance of alcohol, smoking and strenuous exercises.

6. Educate patient to avoid dust and cold environment because this can predispose one to getting pneumonia.
7. Teach patient and his family to avoid passive smoking which can increase an individual susceptibility.

Prevention of Pneumonia

According to Bare & Smeltzer (2012), pneumonia can be prevented in the following ways;

1. Educate on proper environmental and personal hygiene.
2. Sudden change of body temperature should be reported to the appropriate health facility.
3. Avoid excessive intake of alcohol, smoking and environmental pollution (dusty or smoky environment).
4. The patient should sleep in a well-ventilated room.
5. Disease of the Upper Respiratory Tract should be treated quickly to avoid organism descending into the Lower Respiratory Tract
6. Educate patient on the avoidance of indiscriminate use of antibiotics for infections.
7. Sleeping in cold environment should be avoided.
8. Frequent suctioning of secretion in patients who are unconscious or have poor cough reflex
9. Vaccination against pneumococcal and influenza viral infection called pneumovax 23 has been recommended for debilitated patients.

Complications

According to Smelter, Bare et al, (2012), any disease or disorder that occurs during the course or because of another disease. Complications of pneumonia include

1. Emphysema
2. Atelectasis
3. Systemic infection
4. Endocarditis
5. Hypoxaemia

6. Pleural effusion
7. Pericarditis
8. Meningitis
9. Lung abscess
10. Respiratory failure
11. Pulmonary edema

1.11 Validation of Data

Validation is the act of cross-checking information collected from patient and relatives to confirm they are accurate and precise. This is to ensure that, data compiled on patient and relatives are free from biases, misinterpretation and errors as possible. Mr. E. A gave me most of the information, much information was also confirmed when I visited the family at home when he was still on admission. Physical assessment and diagnostic investigations carried out on the patient were compared with standard features and measurement. Also, information gather on patient was cross checked with his family, the medical officer and that from records. Patient's family were asked several questions needed for the validation of data collected during home visit and answers provided were genuine to validate the collected data. All information collected on patient indicates Bronchopneumonia. These checks were done to ensure the ascendancy of the validity of data as possible and can therefore be affirmed that the data is suitable for this study. Family given the same information and the patient also gave the same information

CHAPTER TWO

ANALYSIS OF DATA

2.0 Introduction

Analysis is the detailed study or examination of a result in order to understand more about it (Hornby, 2012). Analysis of data is the second phase of the nursing process and it deals with the analysis of the information gathered from the patient or family. Analysis is the arranging and grouping of identical materials meaningfully for the purpose of identification and comparison, in this phase, all the information collected from the patient/ family as well as the various investigations carried out are compared with standard to identify any abnormality. Patient strength, their health problems and nursing diagnosis are also formulated.

2.1 Comparison of Data with Standards

Under this, information on the health obtained on patients is compared with those in the literature review. These include diagnostic investigations, causes, signs and symptoms, treatment and complications, patient and family strength.

A. Diagnostic Investigation/Test

Diagnostic investigation is a study conducted on a patient to confirm the condition he/she is suffering from and to found the causes of a disease to guide treatment plan. It is also an examination to identify an individual specific area of weakness and strength in order to determine a condition, disease. Some these are:

1. Blood for haemoglobin estimation
2. Blood for white blood cell count
3. Blood for malaria parasite
4. Chest X-ray

Table 1.0: Comparison of the Diagnostic Investigations with literature review.

Diagnostic Investigation According to Literature Review	**Diagnostic Investigations conducted on Patient**
Chest X-ray	Chest X-ray was done on patient
Culture and Sensitivity test	Not ordered
White Blood Cell Count	White Blood Cell count was done
Red Blood Cell Count	Red Blood Cell count was done
Haemoglobin level estimation	Haemoglobin level estimation was done
Blood film for Malaria parasite	Malaria test was done.
Bronchoscopy	Not ordered
Physical examination	Auscultation was done

The table above indicates that the investigations conducted on my patient was up to standards from the literature review and that helped in arriving at the definitive diagnosis of my patient.

TABLE 2.0. Diagnostic Investigation carried out on Mr. E A

DATE	SPECI-MEN	INVESTIGA-TION	RESULTS	NORMAL VALUE	INTERPRETATION	REMARKS
08/11/22	Blood	Haemoglobin Level estimation	13.9g/dl	Female:11-16g/dl Male: 12-18g/dl Children: 8-17g/dl	Normal value	No treatment was given
08/11/22	Blood	White blood cell count (total and differential count	1. Total white blood cell count -17.49x10^3/ul. 2. Neutrophil count-9.91x10^3/ul 3. lymphocyte count-5.85x10^3/ul	WBC-2.60-8.50 Neutrophils 1.50 – 7.00 Lymphocyte-1.00-3.70	Abnormal indicating infection	Total white blood cell increased indicating infection. Neutrophils and lymphocyte also increased. Amoxicillin + Clavulanic Acid inj 600mg, 1200mg. bd for 24hours was given.
08/11/22	Blood	Malaria parasite	Negative	There should be no parasite in the blood	There was no parasite in the blood	No treatment was given
08/11/22	Human chest	Chest x-ray	There are dense patches showing consolidated at the bronchi of the lungs	It should be clear	x-ray was not clear indicating infection	Antibiotics (Tablet amoxicillin + clavulanic Acid 250mg, bd for 5days) was given.

B. Causes of Patient Illness

There are several causes of pneumonia. These are:

1. Bacteria Causes. Examples are streptococci, staphylococci, klebsiella and pneumococci.
2. Viral Causes. Examples are Adenovirus, Rhinovirus and Cytomegalovirus and influenza virus.
3. It is also caused by some risk factors such as having a weakened immune system, which may be caused by chemotherapy or use of immunosuppressive drugs, heavy alcohol intake.

Through literature review, the cause of pneumonia and various investigations which were carried out proved that Mr. E A's condition was caused by bacterial infection

C. Signs and Symptoms

Table 3.0: Comparison of Clinical Features in the Literature Review To Those Exhibited By Patient (Mr. E A)

CLINICAL FEATURES IN LITERATURE REVIEW	CLINICAL FEATURES EXHIBITED BY PATIENT
1. Headache	Patient experienced headache
2. Fever ranges from 38 to 40	Fever was not present
3. Anorexia	Anorexia was present
4. Weakness	Weakness was present
5. Chest pain	Chest pain was present
6. Dyspnoea	Dyspnoea was present

7. Unproductive cough which usually became productive	Productive cough was present
8. Shortness of breath	Shortness of breath was present

The various clinical features were exhibited by Mr. E A that indicates that he was suffering from pneumonia.

D. Treatment Given To Patient

Treatment is the mode of dealing with a patient or a disease (Weller, 2016)

The following drug treatment was prescribed for the patient.

Tablet Paracetamol 1g tds for 3 days

Amoxicillin + Clavulanic Acid inj 250mg, 1200mg. bd for 48hours

Salbutamol Nebules 2.5mg, 5mg stat for 24hours

Iv Dextrose Saline and Normal Saline

Tablet Azithromycin

Simple Linctus 15mls

TABLE 4.0: Comparison of Medical Treatment with the Literature Review on Mr. E A

Medical Treatment According To Literature Review	**Medical Treatment Given To Mr. E A**
1. Broad spectrum antibiotics such as Cefuroxime, Amoxiclav and Gentamycin are given to combat infection	1. Antibiotics such as Intravenous Amoxiclav was prescribed for my patient
2. Intravenous fluids such as dextrose saline, ringers lactate or normal saline are administered to correct fluid and electrolyte balance	2. Intravenous Dextrose saline and normal saline were administered to my patient

3. Analgesics and Anti pyretics such as diclofenac and Paracetamol are given to relief pain	3. Paracetamol tab was administered to my patient
4. Expectorant Cough mixture is administered to thin out sputum.	4. Expectorant cough mixture (simple linctus 15mls) was given.
5. Oxygen or Salbutamol Nebules is also administered to relieve dyspnoea and improve breathing pattern.	5. Salbutamol Nebulise and oxygen were administered to my patient

From the above table, my patient was given the right medication for the pneumonia

TABLE 5.0: Pharmacology of Drugs

DATE	DRUGS	DOSAGE /ROUTE OF ADMINISTATION PER LITERATURE	DOSAGE/ROUTE ADMINISTATION TO PATIENT	CLASSIFICATION	DESIRED EFFECT	ACTUAL EFFECT	SIDE EFFECT/ REMEDIES
08/11/22	Intravenous Amoxicillin+ Clavulanic Acid inj 600mg,1200mg. bd for 48hours	**Child**- 25mg/kg **Adult**- 1000mg **Route**-intravenous	600mg 12hourly for 48hrs **Route**- Intravenous	Antibiotic (Penicillin)	To inhibit bacterial cell wall synthesis to kill the bacterial and promote Osmotic instability.	Patient condition was improved after the complete treatment of intravenous Amoxicillin+ Clavulanic Acid	Nausea, vomiting, diarrhoea and skin rashes. None was observed
08/11/22	Salbutamol nebulizer 2.5mg Stat	Adult dose 2.5mg **Route-** Inhalation	2.5mg stat	Antiasthmatic agent	It is used to treat bronchospasm (due to any cause- allergic asthma or exercise induced)	Patient was relief from breathing distress	Headache, dizziness and feeling anxious. None was observed.

TABLE 5.0: PHARMACOLOGY OF DRUGS CONT'

DATE	DRUGS	DOSAGE /ROUTE OF ADMINISTATION PER LITERATURE	DOSAGE/ROUTE ADMINISTATION TO PATIENT	CLASSIFICATION	DESIRED EFFECT	ACTUAL EFFECT	SIDE EFFECT/ REMEDIES
08/11/22	Tablet Paracetamol	**Adults;** 1g tds for 5 days. **Children ;** 250-500 mg tds for 7 days Route- Oral	1g tds for 5 days	Analgesics and Antipyretic	It acts by inhibition of cyclooxygenase (COX) - mediated production of prostaglandins. It is used for mild to moderate pain and pyrexia.	It is used for mild to moderate pain and pyrexia. pain was reduced to normal	Jaundice, hypoglycaemia, anaemia. None was observed
08/11/22	Dextrose Normal Saline	500mls - 1000mls Route- Intravenously	500 millilitres x daily Intravenously	Isotonic Intravenous Infusion	To keep the body fluid and electrolytes level to normal	Patients fluid and electrolyte was normal after the administration of normal saline	Oedema, heart failure, hyperchloraemic acidosis, none occurred

08/11/22	Tablet Azithromycin	**Adult: Intravenous** 500mg od for 3days(18 years and above) **Children:** 10mg od for 3days(6months to 17 years) **Children:** Do not serve it to children under 6 months.	500mg od for 3 days Orally.	Macrolide Antibiotics.	Inhibits synthesis of bacterial cell wall causing cell death	Patient condition improved	Nausea, vomiting, and abdominal pain. None of these were observed in my patient.
08/11/22	Simple linctus cough mixture	**Adult-** 15mls for every 8 hours **Child**-5-10mls for every 8 hours **Route-** Oral	15mls three times daily x 5	Expectorant	It act by increasing the volume and reducing the viscosity of secretions in the trachea and bronchi. It is used for symptomatic relieve of cough	Patient condition improved	Nausea, vomiting, diarrhoea None of these were observed in my patient

E. Complication

As mentioned in the literature review, pneumonia can develop into complication if the appropriate treatment is not given. Due to the early detection of condition and effective treatment that was given, patient (Mr. E A) did not develop any of these complications mentioned in the literature review.

2.2 Patient / Family Strengths

Strength is factor or activity that can be identified on a patient irrespective of his/her illness that can help the nurse to plan an individualized care for the patient. Below includes the strength of patient and family;

1. Patient could breathe in upright or fowlers position.
2. Patient pain and headache intensity reduced when at rest
3. Patient can sleep uninterrupted for about 30 minutes in the day and one to two hours in the night.
4. Patient and family expressed their willingness to know more about the condition.
5. Patient walks for 10mins before taking his rest
6. Patient could take one third of his meal served and can tolerate liberal fluids.

2.3 Patient/family Health Problems

To provide effective nursing care to the patient, it is essential for the health problems of his to be identified through assessment, observation and data collection. These problems include actual and potential health problems. Patient and his relatives were anxious about the outcome of the condition. During observation, the following problems were identified;

1. Patient had labored respiration
2. Patient experienced chest pains and headache
3. Patient was coughing and had interrupted sleep
4. Patient/family were ignorant about the condition
5. Patient has general malaise
6. Patient has loss of appetite

2.4 Nursing Diagnosis

Nursing diagnosis is statement of health problem or a potential health problem of the patient's / family health status that need nursing care.

1. Ineffective breathing pattern (dyspnoea) related to inflammation of the lungs (08/11/22)
2. Altered body comfort related to pneumonia related symptoms chest pains, headache and cough (08/11/22)
3. Sleep pattern disturbance related to intermittent cough (09/11/22)
4. Knowledge deficit related to lack of access to information on pneumonia (09/11/22)
5. Activity intolerance related to general malaise (09/11/22).
6. Altered or imbalance nutritional pattern less than body requirement, related to loss of appetite (09/11/22).

CHAPTER THREE

PLANNING FOR PATIENT/FAMILY CARE

3.0 Introduction

Planning is the stage of nursing process in which the nurse and the patient/ family together consider the goals to achieve in meeting the patient's/ family identified or potential problems in daily life and to produce an individual care plan (Taylor, 2019). Planning is the third stage of the nursing process. This is when the nurse and the Patient/family collaborate to consider the goals to achieve in meeting the patients identified the potential needs in daily life. This is achieved by setting objectives with expected outcomes nursing diagnosis and rendering an individualized care. A target is set ahead on estimated date for evaluation of whether or not the goal has been achieved or partially met. This helps the patient and family to meet their health needs.

3.1 Objectives and Outcome Criteria for the patient and Family Care Plan

1. Patient will regain his normal breathing pattern (18 to 22 cpm) within 24 hours as evidence by:
    I. Nurse observing a stable respiration cycle between 18-22c/m.
    II. Patient verbalizing that he has less chest discomfort or he can breathe normal.
2. Patient will be relief of pain within 24hours as evidenced by:
    I. Patient reporting relief of pain
    II. The nurse observing that the patient has a relaxed facial expression
3. Patient will regain his normal sleeping pattern of 6-8 hours within 24 hours as evidence by:
    I. Patient verbalizing that he had his normal sleeping hours of 6-8 hours during the night.

II. The night nurse observing that patient slept for 6-8 hours throughout the night without interruption.

4. Patient will have enough knowledge on pneumonia within the period of hospitalization as evidence by:
   I. Patient ability to verbalize the causes, management and prevention of the condition.
   II. Patient cooperation in his management
5. Patient tolerance for activity will be restored and can perform self-care daily functioning within 48hours as evidence by:
   I. Nurse observing patient performing his daily self-care activities
   II. Patient verbalizing that he can perform his daily care activities
6. Patient will maintain his normal nutritional status throughout the period of hospitalization as evidence by:
   I. Patient eat 1.5 litre capacity bowl of his meal served
   II. Patient gaining weight when checked and looking good.

3.2 Nursing care plan

The tables below are the care plan that was drawn for Mr. E.A

Table 6.0 Patient/Family Care plan for Mr. E A

Date/ Time	Nursing Diagnosis	Objective/Outcome Criteria	Nursing Orders	Nursing Intervention	Date/ Time	Evaluation	Signature
08/11/22 10:00am	Ineffective breathing pattern (dypsnoea) related to inflammation of the lungs	Patient will regain his normal breathing pattern (18-22 cpm) within 24 hours as evidence by; 1. Nurse observing a stable respiration cycle between 18-22 c/m. 2. Patient verbalizing that he has less chest discomfort.	1. Reassure patient and relative that normal breathing pattern will be restored. 2. Nurse patient in an upright position. 3. Monitor vital signs especially respiration every 30 minutes and record until it becomes stable and record. 4. Assess respiratory depth and breathe sound every 30minutes.	1. Patient and relatives were reassured that his normal breathing pattern will be restored. 2. Patient was nursed in an upright position to enhance his breathing. 3. Vital signs were monitored especially respiration. 4. Patient's respiration was assessed by counting breath sounds by auscultation whilst the depth rate and rhythm were assessed at the same time to identify any deviation away from the	09/11/22 10:00am	Goal fully met as nurse observes patient breathing pattern was within normal range (18-22 c/m).and patient verbalizing that he can now breathe without difficulties	Y J

			5. Teach and encourage deep breathing exercises 2 hourly during the day. 6. Serve prescribed drugs as ordered.	normal values (18-22cpm). 5. Deep breathing exercises were taught and encouraged. 6. Drugs such as IV Amoxiclav 1.2g and tablet Azithromycin 500mg were administered to combat infections.			

Table 6:1 Patient/ Family Care Plan for Mr. E A

Date and Time	Nursing Diagnosis	Nursing Objective/outcome Criteria	Nursing Orders	Nursing Intervention	Date and Time	Evaluation	Sign
08/11/22 11:00am	Alteration in body Comfort related to pneumonia related symptoms like (headache and chest pain).	Patient's headache would be relieved within 24 hours as evidenced by; 1. Patient verbalizing relief of pain 2. Nurse observing that patient has relaxed facial expression and increased participation in activities	1. Assess for pain the type, level, location, severity and factors that aggravate the ache 2. Monitor her vital signs regularly 3. Make a comfortable bed to ensure rest 4. Perform all procedures at a time 5. Provide a conducive environment for rest 6. Administer prescribe d analgesics.	1. Pain assessment was done noting the level on the pain scale, pain site, aggravating factors, intensity and severity. 2. Patient's vital signs were monitored regularly every 30minutes to 1hour, 2hours and 4hourly as condition stabilized. 3.Patient was put in a well-made bed free from creases to ensure rest 4. All procedures were carried at go to prevent interrupted sleep 5. A conducive ward was ensure by reducing noise on the ward, restricting visitors, opening of nearby windows 6. Prescribed Tab paracetamol 1g tds x 3 days was served and documented	09/11/22 11:00am	Goal fully met as patient verbalized a relief of pain and patient had a relaxed facial expression by afternoon nurses notes.	**Y J**

Table 6.2 Patient/Family Care plan for Mr. E A

Date/ Time	Nursing Diagnosis	Objective/Outcome Criteria	Nursing Orders	Nursing Intervention	Date/ Time	Evaluation	Sign
09/11/22 10:00am	Sleeping pattern disturbance related to frequent attack of cough	Patient would regain his normal sleeping pattern of 6-8 hours within 24 hours of hospitalization as evidenced by: a. Patient verbalizing that he was able to sleep well. b. Nurse observing patient sleep for 6-8 hours at night without interruption.	1. Reassure patient/family that he is in hands of competent staffs and all measures will be put in place to help patient get a good sleep. 2. Assess patient's sleep pattern. 3. Ensure quiet environment. 4. Plan nursing activities in order not to disturb patient during sleep. 5. Reduce the number of visitors. 6. Discourage the intake of caffeine. 7. Serve prescribe antibiotics and cough mixtures for patient	1. Patient/family was reassured that he was in hands of competent staffs and all measures would be put in place to help induce sleep. 2. Patient's sleep pattern was assessed. 3. A quiet environment was ensured by reducing the volume on radio and television sets. 4. Nursing activities were planned in order not to disturb patient during his sleep. 5. Number of visitors were reduced. 6. Intake of caffeine was discouraged. 7. Antibiotics, intravenous amoxicillin+ clavulanic acid, 600mg bd for 48hours and simple linctus 15mls was served for patient.	10/11/22 10:00am	Goal fully met as Patient was able to have his normal sleeping hours.	**Y J**

Table 6.3 Patient/Family Care plan for Mr. E A

Date/ Time	Nursing Diagnosis	Objective/Outcome Criteria	Nursing Orders	Nursing Intervention	Date/ Time	Evaluation	Sign
09/11/22 11:00am	Knowledge deficit related to lack of information about condition (Pneumonia	Patient will have enough knowledge on pneumonia within the period of hospitalization as evidenced by; 1. Patient ability to verbalize the causes, management and prevention of the condition. 2. Nurse observing that patient gained knowledge on the disease condition by asking patient questions for clarification.	1. Reassure patient that the health team will help him to know much about the disease condition. 2. Explain every procedure to be carried out and its rationale to the patient. 3. Educate patient on the causes, signs and symptoms, prevention and management of the condition. 4. Allow patient to ask questions and clarify his doubts and misconceptions. 5. Ask patient questions for feedback. 6. Recommend patient and family on their effort. 7. Document procedures into the nurses' notes.	1. Patient was reassured of support from the health team. 2. Every procedures and rationale were explained to the patient. 3. Patient was educated on the causes, signs and symptoms, prevention and management of the condition. 4.Questions asked by the patient were tactfully answered 5. Questions were asked for feedback. 6. Patient and family were recommended for their effort. 7. All procedures carried out on patient were documented in the nurses' note accordingly	12/11/22 11:00am	Goal fully met, as patient was able to mention causes, management and preventive measures of pneumonia and patient/ family answered questions asked by nurse correctly	**Y J**

6.4 Patient/Family Care plan for Mr. E A

Date/ Time	Nursing Diagnosis	Objectives/Outcome Criteria	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation	Sign
09/11/22 11:30am	Activity intolerance related to general malaise	Patient will demonstrate and increased tolerance for activity within 48 hours as evidenced by patient; 1. Verbalization of feeling less fatigued and weak. 2. Ability to perform activities of daily living without exertional dyspnea, diaphoresis.	1. Reassure patient for being in safe hands of competent staffs. 2. Assist patient in activities of daily living. 3. Assist patient in passive exercise. 4. Assist patient in ambulation. 5. Served prescribed medication. 6. Maintain prescribed activity restriction. 7. Minimize environmental activity and noise to Provide uninterrupted rest periods. 8. Serve patient with meals high in essential nutrients such as calories and protein.	1. Patient was reassured of being in safe hands of staffs. 2. Patient was assisted in activities of daily living. 3. Patient was assisted in passive exercise. 4. Patient was assisted in ambulation. 5. Prescribed drugs were served. 6. Activity restriction was maintained. 7. Environmental activity and noise was minimized and Uninterrupted rest periods was provided. 8. Patient was served with meals high in calories and protein.	11/11/22 11:00am	Goal was fully met as patient was able to performed his daily activities	**Y J**

Table 6.5 Patient/Family Care plan for Mr. E A

Date/ Time	Nursing Diagnosis	Objective/Outcome Criteria	Nursing Orders	Nursing Intervention	Date/ Time	Evaluation	Sign
09/11/22 11:50am	Altered or imbalance nutritional pattern less than body requirement, related to loss of appetite	Patient will maintain his normal nutritional status throughout the period of hospitalization as evidenced by; 1. Nurse visualizing that; a. Patient ate almost all the meals served. b. Patient is gaining weight when checked on weighing scale. c. Patient eat half of meal serve in 1.5 litre capacity bowl.	1. Reassure patient that he will be able to eat. 2. Give mouth care before and after meals to clear patient's mouth. 3. Serve foods in bits and attractive. 4. Give fruit juice after each meal to boost appetite. 5. Allow adequate time for patient to eat. 6. Serve prescribed drugs.	1. Patient was reassured. 2. Mouth care was given before and after meals to clear patient's mouth. 3. Meals were served in bits and attractive. 4. Orange juice was given after every meal to boost appetite. 5. Patient was allowed adequate time to eat. 6. Drugs were served as ordered.	12/11/22 11:50am	Goal was fully met as patient ate all the three square meals served.	**Y J**

CHAPTER FOUR

IMPLEMENTATION OF THE PATIENT/FAMILY CARE

4.0 Introduction

According to Smeltzer and Bare (2012), implementation is the actualization of the plan of care through nursing intervention. Implementation is the fourth step in the nursing process. It involves the execution of the nursing care plan derived during the planning phase of the nursing process. Implementation is directed towards fulfilling the patient's needs that results in health promotion, illness management or health restoration in a variety of setting such as a health facility or home. It also involves the delegation of tasks to staff members and assistive personnel and documentation of the specific activities executed by the nurse and the patient's response to these activities.

4.1 Summary of Actual Nursing Care rendered to Mr. E A

The nursing care rendered to my patient Mr. E A started on the day of admission, which was on the 8th November, 2022, till he was discharged (12th November, 2022). During the period of admission, routine cares such as bed making, feeding, checking of vital signs, serving of medications and observations were rendered accordingly.

Day of admission, (Tuesday, 8th November, 2022)

On 8th November, 2022 at 9:36am, Patient (Mr. E A) was admitted into the male's ward through outpatient department. He was review by Dr. U I, accompanied by his brother and outpatient department nurse on a wheel chair. They were warmly welcomed and put on an already prepared bed with the head of the bed elevated in a semi fowler's position to ensure proper expansion of the chest to facilitate breathing. Introductions were made whereas patient was in bed because he was a little weak and having difficulty in breathing though he was conscious, the patient was nebulized with salbutamol 5mg stat and 1 litre of oxygen with

duration of 30 minutes to ensure patency of the air way. I then collected his folder number from the nurse since they deal with computer base system, I checked on the system to view patient name, diagnosis and treatment. I mentioned the patient name to verify if it was him on the system and if he is the right patient. I reassured them that, all the necessary nursing and medical intervention would be carried out to restore him to normal health. His particulars such as name, age, address, religion, allergies, and next of kin has already been entered at the OPD level. So, I confirm them with the patient and his brother. All necessary sheets like medications; laboratory and temperature sheets were filled accordingly. His vital signs were checked and recorded as follows;

Temperature	36.5^{o}C
Pulse	87 bpm
Respiration	28 cpm
Blood pressure	115/76mmHg

Weight was checked and recorded as 62kg

SpO2	72%

General observation on patient including head, hair, eyes, mouth, ears, skin and mental state were found normal except respiratory distress problem as indicated as 28 cycles per minute. With regards to the signs of the disease of the patient, he exhibited cough, chest pain on cough, headache, kneel pain and difficulty in breathing. Patient's relatives were orientated to the ward and its annexes, important hospital routines and policies such as visiting hours, ward protocols and other important information's were made known to the relatives. The relatives were told the things the patient will need during his admission period.

Patient was put on the following drugs;

1. Tablet Paracetamol 1g tds for 5 days
2. Tablet Azithromycine500mg once daily for 3 days
3. Amoxicillin + Clavulanic Acid inj 250mg, twice for 48hours
4. Salbutamol solution for nebulization 5mg stat for 24hours
5. Syrup Simple Lintus 15mls tds for 7days.
6. 1 litre of oxygen

Laboratory test and other investigations requested include; Chest X-ray, Sputum for acid fast bacilli, Haemoglobin level estimation, Erythrocyte sedimentation rate (ESR), Malaria parasites. He was also given routine nursing care such as oral care; feeding and drug administration and all were documented into the nurses' notes. Drugs were collected from the in- patient pharmacy since patient is a National Health Insurance Scheme (NHIS) holder. As part of admission process, I reintroduced myself as a student nurse in final year from Nursing and Midwifery Training College, Berekum who would like to use him for my care study to enable me render a holistic nursing care to him and the family as partial fulfillment towards the requirement of an award of a license to practice as a Registered General Nurse. They accepted with great joy and thanked me for showing care to him and the family and also assured me of their maximum cooperation.

Discharge plan was communicated to patient and family including possible duration of hospitalization and after care. My reason for choosing this condition was for the fact that, it is an interesting condition which will help me learn more. I assured patient and family of confidentiality of the information obtained through our interaction by using initials to represent their names. Patient relatives cooperated fully during the care. I went ahead and identified the following health problems based on complains and assessment of patient;

At 10:00am, patient was observed to have difficulty in breathing. Nursing diagnosis of Ineffective breathing pattern (difficulty in breathing) related to chest pain and congestion in the lungs was made. An objective to help patient be able to breathe without difficulties within 24hours was set. Nursing interventions implemented included; Patient was put in a fowler's position and supported with pillows at the back to facilitate breathing. Tight clothing was removed to ensure smooth respiration. Patient's respiration was assessed. Breath sounds by auscultation whilst the depth rate and rhythm were assessed at the same time. Nearby windows were opened to ensure adequate ventilation. Prescribed drugs such as Antibiotics, intravenous amoxicillin+ clavulanic acid, 250mg was administered to combat infections, signs and symptoms of ineffective breathing pattern were assessed, patient was encouraged to perform deep breathing exercise every 1-2hours.

At 11:00am, patient experienced chest pain. Nursing diagnosis of Alteration in body comfort (chest pains and headache) related to inflammatory process was made. An objective to relief patient of chest pain and headache within 24hours was set. Nursing interventions implemented included; patient was reassured that pain will subside and warm compress was applied to patient's chest and head. Patient was encouraged to take in 200mls of fluids every 2hours. Patient was also put in a fowler's position to facilitate breathing. Tablet paracetamol 1g tid x 5, Patient pain level was assessed using pain rated scale. Patient was engaged in conversation as a form of diversional activity.

In the evening at 6pm, patient vital signs were checked and recorded as follows;

Temperature	36.8ºC
Pulse	86bpm
Respiration	25cpm

Blood pressure 118/77mmHg

Patient was served with banku and okro soup, and at 10 pm intravenous amoxicillin+ clavulanic acid, 250mg was served. All due medications were served and documented. Patient went to sleep around 10:30pm.

Second Day of Admission (Wednesday, 9th November, 2022)

Patient woke up around 5:00am. He took a warm bath as well as oral hygiene performed. Around 6:30am He was served with porridge with milk and bread for breakfast while his bed was straightening and made free from cramps. Vitals signs were checked and recorded as follows;

Temperature	36.9 ^{0}C
Pulse	92bpm
Respiration	23cpm
Blood pressure	130/70mmHg

Patient's weight was checked and recorded as 62kg. At 9:20am, patient was served with white porridge with groundnut as breakfast. At 10:00am, an evaluation of altered breathing pattern (dyspnea) related to presence of exudates in the alveoli was made and I found out that set goal is fully met, as respiration now records 22cpm. He was reviewed by Dr. U I around 10:00am where the patient was found to have difficulty in sleeping. A nursing diagnosis of Sleep pattern disturbance related to intermittent cough and change in environment, an objective to help patient will regain his normal sleeping pattern of 6-8 hours within 24 hours. Therefore, comprehensive nursing interventions which includes, Patient was reassured that he will have enough sleep since proper nursing intervention have been instituted. Patient's bed

was made free from creases and cramps to enable him get a sound sleep. Patient's vital signs were monitored every 4 hourly. Patient was given a warm bath and drink to dilate peripheral blood vessels to induce sleep. Adequate ventilation was provided by opening nearby windows to allow fresh air into the ward. Prescribed drugs such as cough mixtures and antibiotics were administered to relieve pain, persistent cough and to combat infection. Patient's relative was involved in the care of the patient. Patient was introduced to others who had improved in the same condition. Also, at 11.00am evaluation on altered body comfort (chest pains and headache) related to inflammatory process was made and I found out that goal was fully met, as patient verbalizing that pain has subside. Around 11:00am this day, when the doctor was done with my patient, I went to him for more data collection, where I realized that, Patient/family was ignorant about the condition. A nursing diagnosis of Knowledge deficit related to lack of information about condition (Pneumonia). The objective set for patient and relatives to have adequate knowledge about the causes, sign and symptoms, prevention and management of his condition (bronchopneumonia) within the period of hospitalization. Nursing interventions done to ensure that patient and relatives gain adequate information about the condition includes a good interpersonal relationship was established with patient and relatives. Patient and relatives were given the chance to say what they know about pneumonia. Patient and relatives were educated on the causes, signs and symptoms, prevention, management and complications of bronchopneumonia. Patient and relatives were allowed to ask questions and were answered in simple terms to aid in their understanding. Questions were asked on the education given and feedback was given by the patient and relatives correctly. At 10.30am, patient reports of having general malaise. A nursing diagnosis of activity intolerance related to general malaise was formulated, a objective to help patient tolerance for activity will be restored and can perform self-care daily functioning within 48hours At 11:50am, patient report of loss of appetite. A formulated

nursing diagnosis of Altered or imbalance nutritional pattern less than body requirement related to loss of appetite. Nursing intervention done to restore the appetite was encouraging fluid intake. Dietary plan for the day is as follows; breakfast Hot tea with fried eggs and bread, Lunch; plain rice and stew with fried fish, supper; fufu with light soup made with fresh Salmon.

Vital signs checked and recorded whiles due medications were served and documented. The patient then took his bath and had his super. At 10:00pm, all other ward routine activities such as checking of vital signs were done and recorded. Patient was then left to rest and fell asleep around 10:20pm.

Third Day of Admission (Thursday, 10th November, 2022)

Mr. E. A woke up around 5.30 am. Warm bath was performed as well as mouth care. All daily ward routine was carried out such as changing of bed linen and serving of medication. Patient's vital signs were checked and recorded as follows;

Temperature	36.5 ^{0}C
Pulse	92 bpm
Respiration	21cpm
Blood pressure	120/70 mmHg

Weight is also checked and recorded as 62kg. Around 10:00am, the doctor came for rounds, he did not have difficult in sleeping. He verbalized that, he was able to have continuous 6 hours sleep without any interruption and was hopeful that he would soon be discharged. Patient's condition on this day was fair. At 10.00am, an evaluation for the objective patient will regain his normal sleeping pattern of 6-8 hours within 24 hours was made and goal was

fully met as patient gain his normal sleeping pattern of 6-8 hours within 24 hours as evidence by: patient verbalizing that he had his normal sleeping hours around 6-8 hours during the night and the night nurse observing that patient slept for 6-8 hours throughout the night without interruption. He maintained his personal hygiene and self-activity on his own including feeding. Nursing management includes psychological support through reassurance. A comfortable bed has been provided. Later in the day, Patient's vital signs were also assessed and recorded and they were found to be in the normal range, patient had no other complains during the day and at night, he went to bed around 10:30 pm after his night medications has been served to him and vital signs checked and recorded.

Fourth Day of Admission (Friday, 11th November, 2022)

Patient woke up around 5:20am. At 5:30am, his personal hygiene was maintained including bathing and oral care and after, his breakfast was served. At 6:00am, due medications were served and vital signs checked and recorded as follows;

Temperature	36.6^0C
Pulse	93bpm
Bp	116/75mmHg
Respiration	19cpm
SPo2	99%

At 8:00am, the doctor came for round and ask to continue treatment, At 11:30am, I evaluated the nursing diagnosis of activity intolerance, related to general body weakness and goal was fully met as patient and relative verbalizes that he can now perform activities unaided. Afternoon staff reported that patient's lunch was served and he was able to eat well and his

vital signs at 2:00pm was checked and recorded. At 8:00pm, evening medications were served and documented. Patient went to bed around 8:30pm. Evening vital signs were checked and recorded at 10:00pm. Patient was then left to rest and fell asleep around 10:30pm.

Fifth Day of Admission/ Day of discharge (Saturday, 12th November, 2022)

This is the last day of admission, my patient woke up around 5.15am. Warm bath was performed as well as mouth care. All daily ward routines including changing of bed linen and serving of medication were performed for the patient. Patient's vital signs were checked and recorded as follows;

Temperature	36.5 ^{0}C
Pulse	80 bpm
Respiration	21cpm
Blood pressure	120/90 mmHg

Weight is also checked and recorded as 64kg. During ward rounds around 10:00 am, the doctor again examined my patient. On observation, it was realized that patient now looks fit to be discharged home to continue treatment. Patient did not give any complains today and the doctor also did not prescribe any new drugs for him. He urged us all to continue with the discharge plan he ordered yesterday thus Tablet Paracetamol 100mg tds for 7 days, Tablet Azithromycine500mg od for 7 days and Syrup Simple Lintus 15mls tds for 7days. Also, an evaluation of knowledge deficit (patient and relatives) related to the causes, signs and symptoms, preventions and management of bronchopneumonia was made and I realized that, goal is fully met as patient and relatives were able to answer questions asked about the condition correctly.

At 11:50am the same day, an evaluation of the nursing diagnosis of altered nutritional status (less than body requirement) related to loss of appetite was made and goal was fully met, as I observed patient eat more than half of the usual amount of meal, he is always served.

Around 12:30pm, patient himself requested for food and he was served with touzafi with green leafy soup of which he ate almost all. I congratulated him for his effort. Later, 2:00pm vital signs and medications were served. He was informed of his discharge and review date which was on the 12th of November, 2022. All other necessary information were transferred to the admission and discharge page as well as the daily ward state for record keeping. Patient's folder number was taken to the revenue department for assessment of his bills which was catered for by the national health insurance. Patient and family were educated on issues such as the need to continue with his medications and how to take them whiles in the house and the need to eat nutritious diet that would keep them healthy. He was also made known the importance of coming back for review when the date is due. After helping patient and family in packing their belongings, they expressed their appreciations to the entire staff on the ward for the care rendered to them. They ceased that opportunity to bid other patients in the ward as well as the entire staff on duty goodbye. They were escorted from the ward at 3:20pm to the gate. The bed linen was removed and the mattress disinfected with bleach solution 1:10 part of water.

4.2 Preparation of Patient/ Family for Discharge and Rehabilitation

This is where measures are put in place in advance to prepare patient and family for discharge when he is clinically fit as deemed by the medical officer and it starts on the day of admission. This is aimed at getting the family take active role in the care to ensure speedy recovery and gain insight of the condition to maintain his health. They were also educated on the need to wear heavy cloth especially during cold seasons. Proper waste disposal, weeding to ensure adequate ventilation and prevention of air pollution were also not left out in their education. The doctor discharged patient after thorough assessment of his health status which he found to be stable on the 12th of November 2022. He was informed of his discharge and review date which was on the 21st of November, 2022 after all his discharge papers were signed by the doctor. All other necessary information was entered to the admission and discharge page on the system as well as the daily ward state for record keeping. Patient's folder number was taken to the revenue department for assessment of his bills which was catered for by the national health insurance. Patient and family were educated on the need to stick to his drug regimen and the essence of monitoring his condition by reporting to the nearest health facility in case he encounters any problem.

Education was given on the causes, types, risk factors, clinical features, treatment, complication and preventive measures. An advice was given to ensure a well- ventilated environment always. The family was educated on the use of over the counter drugs (OTCD) and the risk they pose to their health. They were encouraged to avoid risk factors such as overcrowding, dust, smoke and always eat a well- balanced diet. I also emphasized the need to ensure proper personal and environmental hygiene, since it is the key to maintain health and stressed on the review date and the need for review.

4.3 Follow Up/Home Visit/ Continuity of Care

Follow up or home visit is a friendly but purposeful visit to the patient with the aim of preventing disease, promoting and maintaining health and prolonging life through health education, counseling, nursing etc. The visit is also to assess the use of available resources at home as well as in the community that can be used to solve actual and potential health problems. It also helps to monitor patient's progress after discharge.

First Home Visit (Thursday, 10th November, 2022)

On Thursday, 10th November, 2022. I visited my patient's house at Nkonsia whiles he was still on admission at around 2:30pm. Basically the aim was to assess the environment where my patient and family reside and to make necessary recommendations where applicable. Also, to help ascertain the cause of patient's illness, any risk factor that might have triggered it, and to help prevent reoccurrence of the disease. It took me 20 minutes ride from my house to reach where patient lives. On arrival, I greeted the brothers and sisters present and I was offered a seat. They asked me of my mission and I explained that I am a student nurse caring for Mr. E A, and as part of the care study, there was the need to see his home and environment to help me give health education on the condition thus prevent the disease from occurring again. They were glad to see me and asked of the general condition of Mr. E A. I told them that he was responding to treatment and will soon be with them. I was warmly welcomed by his brother present. Their house is in Nkonsia along Wenchi to Techiman road, a suburb of Wenchi and near to the Methodist church in the town. The family lives in a house with five bedrooms built with block and roof with roofing sheet. Their rooms are sealed with glass window, there is only one window at the back of each room. Their source of water is public pipe-borne water near the house and they have electricity in their house. They have a plastic container used to store water which was well covered with a lid. They have a bath room built with blocks and toilet facility in the house.

At the back of the house is a dustbin used for collecting refuse and it's emptied every day at the refuse site in the community. Their house is free from weeds and was well cleaned. He sleep under mosquito net and I stressed on the importance for them to maintain the practice since they are close to the public water facility and stagnant water can be found around there, a suitable site for breeding mosquitoes. I educated them to open their window to allow fresh air to enter the rooms and also educate them on proper hand washing and eating of a healthy balanced diet. Around 4:00pm, I thanked them and asked for permission to leave.

Second Home Visit (Friday, 18th November, 2022)

On my second home visit which happened on **Friday, 18th November, 2022**. I visited Mr. E A and family at 10:30am with the aim of educating the whole family on patient's condition, to assess patient's general health after discharge, to assess the family environment and give advice where applicable and also to remind the patient/family of the review date. I greeted my patient, family present and other family member and they warmly welcomed me and offered me a seat. The general condition of Mr. E A was better and that he has appetite and can eat well and no more complained of chest pain, fever and difficulty in breathing as he was having conversation with some of the relatives. The family members present were educated on the condition; the cause, the risk factors, clinical manifestations, diagnosis, treatment and nursing interventions. Education was also given on environmental and good personal hygiene practices such as hand washing, cleaning of their bath and toilet facilities, the dangers of Over the Counter Drugs (OTCD), the need to seek immediate medical care in case of sickness, good nutrition, good source of drinking water and the need to sleep under mosquito net. They were allowed to ask questions and their questions were answered tactfully. After the education, I asked for permission to leave and I assured them I will be visiting them again. I also reminded them about the review date.

Review (Monday, 21st November, 2022)

On Monday, 21st November, 2022, patient and family was met at the Out Patient's Department of Methodist Hospital Wenchi at 9:00am. Patient and family looked well and cheerful. I accompanied him to go for patient's card in order to be on the system, then his Vital signs were checked and recorded as;

Temperature	36.8ºC
Pulse	90bpm
Respiration	22cpm
Blood pressure	110/70mmHg
Patient's Weight was	65kg

Patient was seen by the medical officer at the OPD for review and upon the doctor's assessment, he was found to be healthy. The patient made no new complains. The patient was told to eat balanced diet and to protect himself against risk factors such as cold weather, smoke and dust particles. I disclosed to him that I will visit them to terminate my care. I then accompanied him to the entrance of the hospital for him to board a car to his house.

Third Home Visit (Friday, 9th December, 2022)

I made my third home visit on Friday 9th December, 2022. My main aim was to see how Mr. E A. was doing at home, to see the general condition of the entire family, to reinforce on the education that had been given to them and to finally terminate care.

I handed over Mr. E A to a nurse (Madam C F) at the clinic in the next town (Koase) to continue with the care, I made the patient aware that madam C F will continue his care and whenever he is

having any challenges in his health he should just report it to the health facility for necessary intervention. I told patient family that once I terminate my care, Madam C F will be taking care of them (Mr. E A and Family). Their environment was cleaned without weeds. The windows were closed so I stressed on the need to periodically open it to allow fresh air to enter the room. I explained to patient and family that I was there to assess and terminate my care and handover his care to his brothers and sisters to continue, since he has gained knowledge on the disease condition, its treatment regimen and prevention through education given during the period of hospitalization. I thanked the patient and family for the opportunity they gave me to render care to Mr. E A and also the time I spent with them. The patient and family with other family members also thanked me and I asked for permission to leave. I bid them goodbye and left.

CHAPTER FIVE

EVALUATION OF CARE RENDERED TO PATIENT/FAMILY

5.0 Introduction.

Evaluation is a critical appraisal or assessment of; a judgment of the value, worth character or effectiveness of that which is being assessed (Weller, 2014) Evaluation is done to ascertain whether the goal set out for each of the problem identified are achieved as targeted.

5.1 Statement of Evaluation

Mr. E A. was admitted with a diagnosis of bronchopneumonia at the male's ward. During history taking and assessment the following problems were identified;

a. Patient had difficulty in breathing **(28cpm)**.
b. Patient experienced chest pains.
c. Patient had interrupted sleep.
d. Patient/family had insufficient knowledge about the condition.
e. Patient had general malaise.
f. Patient had loss of appetite.

Based on the problems identified the following objectives were set accordingly as;

a. Patient will be able to breathe without difficulties within 24hours.
b. Patient will be relieved of chest pains within 24hours
c. Patient will sleep uninterruptly 2hours within the day and 6-8hours during the night within 24hours.
d. Patient/family will get insight into the condition throughout the period of hospitalization.
e. Patient will demonstrate an increased tolerance for activity within 48hours.
f. Patient will gain his appetite throughout the period of hospitalization.

Patient regained his normal breathing pattern

On 08/11/22 at 10:00am patient had difficulty in breathing, a nursing diagnosis of Ineffective breathing pattern (dypsnoea) related to inflammation of the lungs was formulated. An objective was set for him to have normal breathing pattern (18-23cpm) within 24hours. Interventions such as patient and relatives were reassured that normal breathing pattern will be restored, patient was nursed in an upright position, vital signs were monitored especially respiration, deep breathing exercises were taught and encouraged were employed. Goal was met at 10:00am on the 09/11/22 as patient had respiration of 20cpm.

Patient was relieved of chest pains

Patient experienced chest pains on 08/11/22 at 10:30am. A nursing diagnosis of Alteration in body comfort related to pneumonia related symptoms like headache and chest pain was made. Objective was set for patient to regain his comfort within 24hours. Interventions carried out included; Pain assessment was done noting the level on the pain scale, pain site, aggravating factors, intensity and severity, Patient's vital signs were monitored regularly every 30minutes to 1hour, 2hours and 4hourly as condition stabilized, Patient was put in a well-made bed free from creases to ensure rest, all procedures were carried out, a conducive ward was ensure by reducing noise on the ward, restricting visitors, opening of nearby windows and prescribed Tab paracetamol 1g tds x 3 days was served and documented. Mr. E A. verbalized that the chest pain has subsided. Goal was fully met on 09/11/22 at 10:30am as patient verbalized a relief of pain and nurse observe that patient has a relaxed facial expression.

Mr. E A had a sound sleep without interruption

Patient had interrupted sleep on the 09/11/22 at 10:00am a nursing diagnosis of sleeping pattern disturbance related to frequent attack of cough. An objective was set to enable patient to resume

his normal sleep pattern (6-8 uninterrupted sleep during the night within 24hours) and cough will subside. Nursing intervention implemented includes; Patient/family were reassured that measures will be put in place to help induce sleep, patient's sleep pattern was assessed, a quiet environment was ensured by reducing the volume of radio and television sets, nursing activities were planned in order not to disturb patient during her sleep Number of visitors were reduced, intake of caffeine was discouraged and antibiotics, intravenous amoxicillin+ clavulanic acid, 250mg bd for 48hours and simple linctus 15mls was served for patient. Goal was fully met on 10/11/22 at 10:00am as patient had 8hours sleep in the night without interruption.

Patient/family gained adequate knowledge on patient's condition

On 09/11/21 at 10:30am, patient/family was noticed to have inadequate on bronchopneumonia. Nursing diagnosis of Knowledge deficit related to lack of information about condition (Pneumonia), an objective to help patient have enough knowledge on pneumonia within the period of hospitalization was set. Nursing interventions implemented included; Patient was reassured of support from the health team, every procedures and rationale were explained to the patient, patient was educated on the causes, signs and symptoms, prevention and management of the condition, questions asked by the patient were tactfully answered, questions were asked for feedback and Patient and family were commended for their effort. Objective set was fully met on 12/11/22 at 10:30am as the patient/family could verbalize the causes, risk factors, clinical manifestations, treatment and preventive measures of bronchopneumonia.

Patient will demonstrate an increased tolerance for activity

On 09/11/22 at 10:40am patient had general malaise. A nursing diagnosis of Activity intolerance related to general malaise was formulated. An objective set was that, patient will demonstrate an increased tolerance within 48hours. Patient was assisted in activities of daily living. Patient was

also assisted in passive exercise and also with ambulation. Uninterrupted rest periods were provided, patient turned two hourly in bed to prevent pressure sores. Also prescribed drugs were served. Goal was fully met as patient verbalized that he is no more fatigue and weak on 11/11/22 at 10:40am.

Patient gained his appetite

On 09/11/22 at 12:00pm, Patient had loss of appetite, nursing diagnosis of altered or imbalance nutritional pattern less than body requirement related to loss of appetite. The objective to help Patient maintain his normal nutritional status throughout the period of hospitalization was formulated. Interventions implemented included; Patient was reassured that his nutritional pattern will be restored, mouth care was given before and after meals to clear patient's mouth, meals were served in bits and attractive, orange juice was given after every meal to boost appetite, patient was allowed adequate time to eat and drugs were served as ordered. Goal was fully met on 12/11/22 at 12:00pm as patient verbalized that he has appetite, can eat well and patient ate all the three square meals served.

5.2 Amendment of Nursing Care Plan for Partially Met and Unmet Outcome Criteria

The objectives and goals that were set during the nursing care of Mr. E A, with the support from other members of the health team and co-operation of the patient/family, were fully achieved based on an individualized care plan. The care plan was therefore not amended.

5.2 Termination of Care

My last home visit to Mr. E A. and his family was on 09/12/22. The reason of the visit was to determine whether the patient condition had improved after review and to finally terminate care. During the period of admission, six (6) problems were identified and efficient nursing interventions were implemented so all goals were achieved. The family was educated on causes,

risk factors, clinical manifestations, treatment and preventive measures on bronchopneumonia. They were also educated on balanced diet, personal and environmental hygiene, and to seek immediate medical care in case of any illness. During the third home visit, I told my patient and family that I may not be able to visit them because I will be going back to school. I handed over Mr. E A to his family to continue the care. Patient/family also thanked me for the holistic nursing care I rendered to patient for the days he spent on admission and even after discharge. I thanked them for their co-operation and they asked for God's blessings for me and that ended the interaction and termination of care.

CHAPTER SIX

SUMMARY AND CONCLUSION

This is the last step of the patient/family care study which entails the student's personal appreciation of the therapeutic relationship with the patient as well as the use of the nursing process.

6.0 Summary

Mr. E.A, a 46 year old man was admitted to the males Ward on Tuesday 8th November, 2022, with the diagnosis of bronchopneumonia at Methodist hospital, Wenchi. Mr. E.A came with the following complains; of dyspnea, headache, inadequate sleep (cough), chest pains, malaise and loss of appetite and spent a total of five days on the ward. On admission his vital signs and weight were checked and recorded. During his period of hospitalization, six health problems were identified, they included breathing difficulty, chest pains, inadequate sleep, patient/family was ignorant of the condition, malaise and loss of appetite. A care plan was drawn with clear objectives and appropriate nursing interventions instituted to tackle each of the problems.

The following diagnostic investigations were conducted;

1. Chest X-ray,
2. Sputum for acid fast bacilli
3. Haemoglobin level estimation
4. Erythrocyte sedimentation rate (ESR)
5. Malaria parasites.

Patient was put on the following drugs;

Tablet Paracetamol 1g tds for 5 days

Tablet Azithromycin 500mg once daily for 3 days

Amoxicillin + Clavulanic Acid inj 2500mg, 1.2g. bd for 48hours

Tab Amoxicillin + Clavulanic Acid 500mg+125mg bd for 7days

Salbutamol Nebules 2.5mg, 5mg stat for 24hours

Syrup Simple Lintus 15mls tds for 7days.

He was discharged home on medications when his condition was clinically well on the Saturday, 12th November, 2022. He came for review on Monday, 21st November, 2022 and was in good health. He was not given any medications and he gave no complains. The official care for Mr. E. A. ended on Friday 9th December, 2022. Three home visits were made to ensure continuity of patient's care. The first visit on Thursday, 10th November, 2022, the aim was to verify the information patient gave and also to assess the environment where patient and family stays to see if it is a contributive factor to patient condition, on Friday, 18th November, 2022, I embarked on my second home visit, the aim was to educate the whole family on patient's condition, assess the general health of patient after discharge, check his medications and also to remind him of the review date and lastly the third home visit on Friday 9th December, 2022 was to finally terminate the care rendered to patient and family. During the home visits, education on patient's condition and its management, personal and environmental hygiene and dangers of over-the-counter drugs (OTCDs) were done and also handed him over to a nurse at the health facility in the town to continue with the care.

6.2 Conclusion

This care study has helped me gain and broadened my knowledge about bronchopneumonia, its management and understanding on how individual nursing care is rendered through the use of the nursing process. . It has also helped me to practice my skills acquired in the classroom practically. This care study will also serve as a guide or reference document for future students of Holy Family Nursing and Midwifery Training College, Berekum who will undertake similar exercise.

Therefore, it is my hope that the knowledge I have acquired will enable me to care for patients not only with Pneumonia but other disease conditions as well, and to impart the knowledge acquired to other colleagues during academic exercise and in my clinical practice as a nurse. The study has help Mr. E A and family to receive a comprehensive nursing care, which help them to recover from their illness without any complication setting in. It has also expose them to additional knowledge on the condition and health care for the sick.

Finally, I have learnt the importance of establishing good interpersonal relationship with both patient and family. I hope the experience will help me to offer a more comprehensive nursing care to other patient in the near future. It is my recommendation that all students are given the opportunity to embark on the patient/family care study. This will help implement the nursing process in order to render individualized comprehensive care to patients/familiesand to understand a family's attitude towards illness and behaviors of individuals when they fall sick. In null shell, I really enjoyed every bit of writing this study despite the challenges I encountered.

APPENDIX

Table 7: Vital signs of Mr. E A

Date	Time	Temperature (^{0}C)	Pulse (bpm)	Respiration (cpm)	Blood pressure (mmHg)	SpO2 %
08/11/22	9:50am	36.5	87	28	115/76	72
	2:00pm	36.2	84	25	110/70	75
	6:00pm	36.8	86	25	118/77	80
	10:00pm	36.0	70	24	120/60	77
09/11/22	6:00am	37.9	92	29	130/70	89
	10:00am	36.3	86	27	120/80	92
	2:00pm	36.4	74	25	110/70	79
	6:00pm	36.3	81	24	120/80	86
	10:00pm	36.7	70	21	110/70	88
10/11/22	6:00am	37.5	92	21	120/70	92
	10:00am	36.7	72	22	120/70	95
	2:00pm	36.9	89	18	110/80	92
	6:00pm	37.1	79	23	120/80	89
	10:00pm	37.2	80	22	110/80	96
11/11/22	6:00am	36.6	93	19	116/75	99
	10:00am	36.7	95	23	125/65	97
	2:00pm	37.6	98	22	99/70	99
	6:00pm	36.2	100	21	105/90	97
	10:00pm	36.9	89	20	113/67	98
12/11/22	6:00am	37.5	95	23	120/70	95
	10:00am	37.1	79	21	120/70	88
	2:00pm	36.9	74	20	110/70	93

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