HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE BEREKUM

A PATIENT/FAMILY CENTERED CARE STUDY ON BRONCHIAL ASTHMA

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A PATIENT/FAMILY CENTERED CARE STUDY ON BRONCHIAL ASTHMA SUBMITTED TO THE NURSING AND MIDWIFERY COUNCIL OF GHANA IN PARTIAL FULFILLMENT FOR THE AWARD OF THE LICENSE TO PRACTICE AS A REGISTERED GENERAL NURSE.

AUGUST, 2022

PREFACE

Before the era of Florence Nightingale, nursing was just about mear caring for the sick. In view of series of transformations that have taken place in nursing, it is now considered as science in which a nursing process similar to the scientific method is being utilized to meet the needs of the patients, the family or the community. It is therefore required by the Nursing and Midwifery Council of Ghana that every final year student nurse applies the nursing process in rendering care to a particular patient his family or community by writing the patient/family case study. The patient/ family care study is a detailed and comprehensive report of nursing care rendered to patient/ family over a specific period of time to meet the physical, mental, socio-economic and spiritual needs of the patient/ family. This detailed and comprehensive report is written by a final year student as part of his or her final assessment to qualify for the award of professional certificate to practice by the Nursing and Midwifery council of Ghana. Writing this detailed report on the patient/ family helps the student nurse to put into practice what he or she has learnt in the classroom, demonstration and even on the ward during training. It also help the student to confidently handle other patient with the same condition and even with different condition as a professional nurse. Patient/family care study also helps the student nurse to provide holistic care to a patient as well as in-depth knowledge on a particular condition. For the purpose of confidentiality only the initials of the patient /family have being used in this write-up.

ACKNOWLEDGEMENT

I wish to express my sincere and deepest gratitude to the Almighty God for giving me the opportunity, strength, guidance and wisdom to bring this work to a successful end.

My second thanks goes to my patient Madam D.J and her family members for their understanding and cooperation. I thank them for all the information they provided towards the progress of this study.

My thanks also goes to my supervisor (Mr. Eric Obeng) who took the pain to read through the entire script and helped me made the necessary corrections and the entire teaching and non-teaching staff of the Holy Family Nursing and Midwifery Training College Berekum for their immense contribution towards my training.

I would like to show appreciation and express my gratitude to the nurses, ward-aids, and the ward incharge of the Medical ward of St Theresa's Hospital Nkoranza (Stephen Nketia) for their help and his support.

My special thanks goes to my mother Hajia Maria Alhassan and my father Ibrahim Adams for their care, love and support throughout my education not forgetting my lovely siblings especially my elder sister Ibrahim Memunatu who is also in-charge at the theater of St Patrick Hospital at Ofinso and my elder brother Anwar Sadat for his support.

Finally, the authors and the publishers of all the books used in the study and also my classmates for their encouragement, support and time spent. I say God richly bless you all.

INTRODUCTION

Patient /family care study involves the interaction between the client and the health team .In this, a patient is selected in a specific ward with a specific diagnose .The patient is nursed from the day of .admission to the day of discharge and follow ups are made to help maintain good health and ensure continuity of care. This patient /family care study was conducted on madam D.J a 51 year old client with a diagnoses of bronchial asthma. Nursing problems identified during admission were difficulty in breathing and restlessness. On examination she was fully conscious. She was admitted in the Emergency ward and then trans out to the Females Medical ward of St Theresa's Hospital, Nkoranza, on the 9th of November, 2021 . The following diagnostic investigations were requested to be done;

1. Blood film for malaria parasite.
2. Blood for Full Blood Count
3. Chest x-ray
4. Pulse oximetry assessment

Patient was managed on the following prescribed medications:

- Intravenous 0.9% sodium chloride in 5% dextrose, 1.5L over 24 hours.
- Tab prednisolone 30mg daily for 7 days.
- Salbutamol inhaler to be used when necessary.
- Sere tide inhaler, 2 puffs twice daily for 7 days.
- Tab salbutamol 5mg, 8 hours interval for 7days.
- Syrup viscof D 15mls 8 hours interval for 5 days.

The patient was discharged on the 12th of November, 2021.In all she spent four days on admission and three home visits were carried out. The care was terminated on the 12th of November 2021.

In the subsequent chapters, the reader would be introduced to know how the nursing process was applied in the nursing care of Madam D.J. Objectives were set to relieve client from problem and recovered fully during discharge without any complication.

This study entails 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

ASSESSMENT OF PATIENT AND FAMILY

1.0 Introduction

The initial nursing assessment, the first step in the five steps of the nursing process, involves the systematic and continuous collection of data; sorting, analyzing and organizing that data; and the documentation and communication of the data collected. Critical thinking skills applied during the nursing process provide a decision-making framework to develop and guide a plan of care for the patient incorporating evidence-based practice concepts. This concept of precision education to tailor care based on an individual's unique cultural, spiritual, and physical needs, rather than a trial by error, one size fits all approach results in a more favourable outcome.
(Dunham & Macinnes, 2018)

1.1 Patient's Particulars/ Demographic Data

Patient particulars are the information gathered about the client and or the family that will directly and indirectly influence the care of the client and the family. It entails patient's name, address, phone numbers, sex, age, race, occupation, spouse's name and their information and many more (Dunham & Macinnes, 2018). For the benefit of maintaining the confidentiality with respect to the patient's identity as promised to her before the study commerced, the patient's name was abbreviated to madam D.J.

A very spiritual woman, a mother and a widow, Madam D. J, 51 years of age who hails from upper east region but now stays at Nkoranza "point 4" in the Nkoranza municipality, house number AD121 in the Bono East region of Ghana. She is dark in complexion, weights 65kg now. Madam D. J is the third child of five children born to Mr. D.D and Mrs. K.D. Both parents are still alive in their old ages. She married Mr. S.A when she was 19 year of age and they remained

married until her husband passed away about 3years ago through road traffic accident. Madam D. J has four children, two girls and two boys. The oldest of her children is 31years and the youngest is 18years of age. Madam D. J was a farmer then but because of aging, the farms have been taken over by the oldest child, tamale. Madam D. J did not get any formal education. She is a Christian and worships with the St. Anthony's Catholic Church at Nkoranza "point 4". She is a Dagati by tribe and speaks fluently Twi and dagaba languages. Her next of kin is her oldest child, Mr. M.A.

She stays with all four children in a semi-detached two bedrooms house with no internal toilet facility nor portable drinking water. The family accesses these amenities from a nearby public outpost that is about some few meters away. The family also has adopted the "dig and burry" method of refuse disposal. The house is located close to an untarred road, which often becomes dusty in the dry seasons.

1.2 Family's Medical History

Madam D. J has no knowledge of any hereditary diseases that runs through her family. But she is currently being managed as an asthmatic client in the hospital. Her Nuclear family usually rely on over-the-counter medications and herbal medications as a first line of treatment and management for almost all ailments.

1.3 Family Socio Economic History

Madam D. J is a retired peasant farmer. The oldest child now supports the family from the farming activities that he does. The youngest among the children is the only one with formal education up to Senior High School. Sources of finance for medical billing is the national health insurance scheme and the MTN "AYO" insurance. Once in a while, they get support from the extended family members and those close t**o** her town. According to patient, she lives peacefully with other

members of the family and people within her community. Madam D.J and her family are middle level economically.

1.4 Patient Developmental History

According to Oxford dictionary (2012), development is the steady growth of something's that becomes more advanced and stronger or Development is 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). According to Oxford dictionary (2012), maturation is referred to as the process of becoming or being made mature.

Growth is the progressive development of living things especially the process by which the body reaches its complete physical development (Weller, 2014). Growth is an increase in size, height, weight and length of an organism that can be measured.

According to Madam D.J, she was delivered full term through spontaneous vaginal delivery by a traditional birth attendant in the Upper East region without any complications of any pregnancy. She had no congenital malformations such as cleft lip/palate, club food. She was not breastfed exclusively for six months but was given porridge when she was three months alongside the breast milk. According to her she was breastfed for one year and she started sitting on her fourth month and started crawling on her fifth month with her teeth erupting that same month and by the tenth month she started walking. Immunization against childhood diseases such as food given to her at the required months she. Started seeing her pubic hair and menarche in at age 15, her parents were alive but life was little difficult for her and her and other siblings and so she got

into early relationship with a man so she couldn't provide herself some petty things which led her to early marriage which was held at the Upper East region and gave birth to four children and all are alive.

1.5 Patient's Lifestyle/Hobbies

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

Madam D. J. has a non-structured lifestyle. She usually wakes up around 6am every morning of the week but her sleeping time is usually in the hours of 9pm to 10pm. She mostly gets an average of one bowel movement, twice bathing with lukewarm water once daily teeth brushing per each day. Mostly, teeth brushing is done with chewing stick. Madam D.J currently has a sedentary kind of lifestyle where she says in the house almost every time. Meals are not structured; she is given any type of meal that the children get for her. Usually takes her breakfast around 9am, lunch and super are mostly combined and taken at 5pm. No beverages are taken. Madam D.J has never liked smoking, alcohol nor tobacco but likes to take cola nuts. She is not use to strong perfumes and scents and does not use such. She relaxes on Saturday with gospel music and then attends church on Sunday for worship. She sometimes attend funeral, wedding and outdooring ceremonies on Saturdays.

According to Eric Erikson 8 stages of psychosocial madam D.J is at the generativist level, this is because she express that she had been able to support a number of people in her community and she is still supporting them in diverse ways

1.6 Obstetric History

From my client, she has had four pregnancies without miscarriage or abortions and delivered spontaneously. She has four children who are all alive and she always experience her menstruation every month without any problem if only she is not pregnant. My client did not use any family planning methods. She had her menarchy at age 15.She never use any family planning method neither has she used contraceptive pills or condom.

1.7 Patient's Past Medical History

The past health history provides information about the patient's prior state of health (Bucher, Dirksen, Heitkemper & Sharon L, 2014). Patient had many ailments that were treated with overthe-counter medications and herbal medicines. Per her medical records, client has been treated/managed in the hospital on couple of times on accounts of malaria, gastroenteritis, gastritis, pneumonia and in most cases, asthma. Her first asthma diagnosis in this hospital per her medical records, was made on the 28th may 2006. Madam D.J claims that she had been told about the condition when she was at Tamale in the Northern region, at that time she was around the adolescent age. According to her folder in this facility, client has made an average of six turnouts to the hospital on account of asthma. Her last visit to this health facility was made on 6th September, 2021, on account of asthma and queried bronchopneumonia. Madam D.J has not had any form of surgery in her lifetime.

1.8 Patient's Present Medical History

Patient notice significant coughing on the 7th November, 2021, without any other accompanying symptoms, which she resorted to over-the-counter cough mixture. Madam D.J claims the coughing subsided but later resurfaced on the 9th November, 2021 around 8pm. That episode of coughing was accompanied by difficulty in breathing and chest tightness and that made Madam

D.J and the family to seek for medical attention in St. Theresa's hospital, at the Emergency ward. She was put in bed in a fowler's position, which was later propped up to 45 angle degree. Nebulize salbutamol 5mg, 3 cycles each 15 minutes apart was initiated while continuous focused assessment was ongoing. Vital signs checked and recorded on arrival as follows;

- Temperature- 36.0^{o}c
- Blood pressure- 140/90mmHg
- Respiration- 32cpm
- Oxygen saturation- 89%
- Pulse- 112bpm
- Random blood sugar - 7.8mmol/L

Blood sample was obtained for full blood count before for malaria parasites .Intravenous line secured and hydrocortisone 200mg ordered and was administered per patient's assessment, these findings were made

- Level of consciousness-patient was conscious, awake, alert and oriented but restless
- pupils- equal reactive to light and accommodate
- client was cooperative but restless
- lung sound has wheezing sound
- jugular neck veins were absent
- skin was cool without any sign of cyanosis
- respiration was irregular

Intranasal oxygen therapy 5mls was initiated .the following were the initial medical care plan proposed for madam D.J

- Supplementary oxygen therapy
- Nebulize salbutamol 5mml 3cycles each 15 minutes apart
- Intravenous hydrocortisone 200mg start dose
- Nebulize ipratropium 0.4mcg 3cycle 15minutes apart and to be given alongside the salbutamol.

Ward orientation was done for the patient's relative, the protocols of the hospital concerning visiting hours and feeding were made known to the relative also the national health insurance

Scheme was explained to both patient and relative stressing on the fact that not all procedures and medication are cover on the scheme .Ward annexes were shown to the relative. Madam D.J was reassured and made to understand that the health team members will do their best, as it is required of them to ensure she gets the best services.

After madam D.J was made comfortable in bed with the first two sets of nebulization done successfully. I was introduced to the patient by the head of the nurses in the Emergency ward as a student who would want to use her current status as a case study and to make sure that all issues will be kept confidential.

1.9 Admission of Patient

Admission of patient means allowing and facilitating a patient to stay in the hospital or ward for observation, investigation and treatment of the disease he /she is suffering from. (Potter &Perry, 2016). Ghana Nursing and Midwifery Council defines admission as an act of allowing the patient/client to stay in the health facility for a period. This brings about a change in the patient(s) environment which could be: sudden and drastic due to an emergency or planned. The first impression created is very important therefore the nurse should be understanding, courteous, confident and efficient.

Madam D.J was admitted into the female's ward of St. Theresa' hospital, Nkoranza per stretcher accompanied by a student nurse and a relative through the Emergency unit with the diagnosis of Asthma. They were welcomed to the nurses' station and seats were offered to them. Patient was made comfortable in an admission bed already prepared.

Vital signs checked and recorded on arrival as follows:

- Temperature – 36.2 degrees Celsius
- Blood pressure – 140/79mmhg
- Respiration – 29cpm
- Oxygen saturation – 96%
- Pulse – 105bpm

Client has already done her requested labs and was be managed with the following medications:

- Intravenous 0.9% sodium chloride in 5% dextrose, 1.5L over 24 hours.
- Tab prednisolone 30mg daily for 7 days.
- Salbutamol inhaler to be used when necessary.
- Sere tide inhaler, 2 puffs twice daily for 7 days.
- Tab salbutamol 5mg, 8 hours interval for 7days.
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Ward orientation was done for the patients' relative, the protocols of the hospital concerning visiting hours and feeding were made known to the relative also. The national health insurance scheme was explained to both the client and her relative, stressing on the fact that not all procedures and medications are cover on the scheme. Ward annexes were shown to the relative. Madam D.J was reassured and made to understand that the health team members will do their best, as it is required of them, to ensure she gets the bests of services.

After madam D.J was made comfortable in bed, with the first two sets of nebulization done successfully, I introduced myself to patient and relatives as a final year student nurse of Holy Family Nursing and Midwifery Training College, Berekum, who would like to use her family and herself for my care study. Patient and her family were informed that the care study is a requirement by the Nursing and Midwifery Council of Ghana in partial fulfilment towards the award of a license to practice as a Registered General Nurse. I explained to patient and family the concept of the patient/family care study and assured them of privacy and confidentiality. It was added that a report will be written after the entire event and will visit their home while still on admission and when she is been discharged home. Patient and family agreed to my request and promised to offer me the necessary information and assistance. Patient and relatives were congratulated on such a decision since doing so showed a mark of a welcoming gesture. Hospital policies regarding visiting periods and payment of bills were explained.

1.10 Patient Concept of about illness

Patient and Family concept of illness is the understanding retained in the mind, from experience, reasoning or imagination about patient illness (Park, 2017). It provides information about patient

perception of his or her illness, cause of illness, concern about illness/fear, expectation about treatment in the hospital, etc.

Patient and relative did not know the actual cause of the illness. She did not attribute her illness to any spiritual cause. They believed that, it was just a disease and she will be cured with prayers and through medical intervention.

1.11 Literature Review on Asthma

Asthma is a chronic inflammatory disease of the airways that causes airway hyper responsiveness, mucosal edema, and mucus production. Asthma differs from the other obstructive lung diseases in that it is largely reversible, either spontaneously or with treatment (Smeltzer, Bare, Hinkle & Cheever, 2010).

Describes asthma as a chronic disorder of the lungs in which inflamed airways are prone to constrict, causing episodes of wheezing, chest tightness, coughing, and breathlessness that range in severity from mild to life-threatening. It is characterized by spasmodic contraction of the smooth muscle of the airways, by increased production of an abnormally viscous mucus by bronchial mucous glands, and, in severe attacks, by airway obstruction from mucus that has accumulated in the bronchial tree.

Incidence and Prevalence

Asthma is the most common chronic disease in childhood, affecting an estimated 7 million children worldwide. (Smeltzer, Bare, Hinkle, & Cheever, 2010). Asthma is a major non communicable disease (NCD), affecting both children and adults. Asthma affected an estimated 262 million people in 2019 and caused 461000 deaths worldwide. Most asthma-related deaths occur in low- and lower-middle income countries, where under-diagnosis and under-treatment is a challenge.

Asthma prevalence rates are more than 38% higher among African Americans than whites and Female African Americans have the highest mortality rates from asthma among all ethnic/gender groups (Sharon L, Dirken, Heitkempere, &Bucher, 2014. From the ISAAC (international study of asthma and allergens in childhood) Steering committee report on
"Worldwide variations in the prevalence of asthma symptoms", after the completion of the ISAAC Phase I (1993–1997), global asthma prevalence for children was reported to be 11.2%. From 2000–2003, Phase III of the project was repeated and recorded some increased prevalence and some with decreased prevalence. The majority of countries that originally had low asthma prevalence in Phase I reported increases in asthma prevalence in Phase III. Suggested that while the overall global prevalence of asthma continues to increase, the global prevalence disparities are at the same time decreasing, possibly reflecting greater awareness of asthma, improved diagnostic practices, and increased environmental exposure or a combination of all.

Etiology

Factors that can contribute to asthma or airway hyper reactivity may include any of the following and Environmental allergens (e.g., house dust mites; animal allergens, especially cat and dog; cockroach allergens; and fungi) can trigger asthma but their role in the actual development of the asthma is not as clear.

Viral respiratory tract infections

Exercise, hyperventilation

Chronic sinusitis or rhinitis

Gastro esophageal reflux disease

Aspirin or non-steroidal anti-inflammatory drug (NSAID) hypersensitivity.

Use of beta-adrenergic receptor blockers (including ophthalmic preparations)

Obesity

Environmental pollutants, tobacco smoke

Occupational exposure

Irritants (e.g., household sprays, paint fumes)

Various high- and low-molecular-weight compounds (e.g., insects, plants, latex, gums, diisocyanatos, anhydrides, wood dust, and fluxes; associated with occupational asthma)

Emotional factors or stress

Perinatal factors (prematurity and increased maternal age; maternal smoking and prenatal exposure to tobacco smoke; breastfeeding has not been definitely shown to be protective)

Pathophysiology of Asthma

The primary pathophysiologic process in asthma is persistent but variable inflammation of the airways. The airflow is limited because the inflammation results in bronchoconstriction, airway hyper responsiveness (hyper reactivity), and edema of the airways. Exposure to allergens or irritants initiates the inflammatory cascade (Figure: 1). A variety of inflammatory cells are involved, including mast cells, macrophages, eosinophil's, neutrophils, T and B lymphocytes, and epithelial cells of the airways. As the inflammatory process begins, mast cells (found beneath the basement membrane of the bronchial wall) degranulation and release multiple inflammatory mediators. IgE antibodies are linked to mast cells, and the allergen crosslinks the IgE. Then inflammatory mediators such as leukotriene's, histamine, cytokines, prostaglandins, and nitric oxide are released. Some inflammatory mediators have effects on the blood vessels,

causing vasodilation and increasing capillary permeability. Some mediators result in the airways being infiltrated by eosinophil, lymphocytes, and neutrophils. The resulting inflammatory process causes vascular congestion, edema, and production of thick and tenacious mucus, bronchial muscle spasms.

Thickening of airway walls, and increased bronchial hyper responsiveness. This whole process is sometimes referred to as the early-phase response in asthma. Clinically it can occur within 30 to 60 minutes after exposure to an allergen or irritant. Further, alpha- and beta2-adrenergic receptors of the sympathetic nervous system are located in the bronchi. When the alphaadrenergic receptors are stimulated, bronchoconstriction occurs; when the beta-2-adrenergic receptors are stimulated, Broncho dilation results. The balance between alpha and beta2 receptors is controlled primarily by cyclic adenosine monophosphate (cAMP). Alpha-adrenergic receptor stimulation results in a decrease in cAMP, which leads to an increase of chemical mediators released by the mast cells and bronchoconstriction. Beta2-receptor stimulation results in increased levels of cAMP, which inhibits the release of chemical mediators and causes Broncho dilation.

Pathophysiology of Asthma

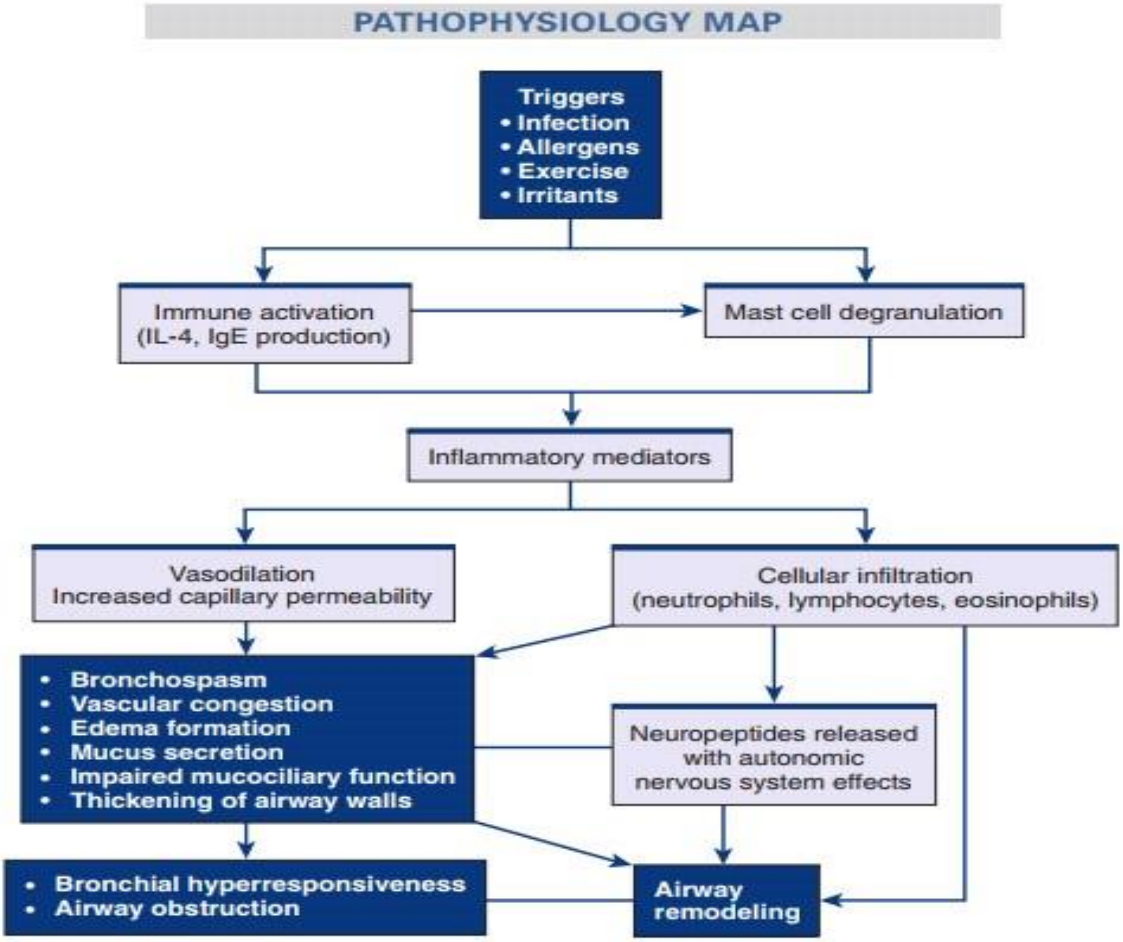


Figure 1: Pathophysiology Map of Asthma.

Classification of Asthma

1. Intermittent asthma is characterized as follows:
    a. Symptoms of cough, wheezing, chest tightness, or difficulty breathing less than twice a week
    b. Flare-ups are brief, but intensity may vary
    c. Night-time symptoms less than twice a month
    d. No symptoms between flare-ups
    e. Lung function test FEV is 80% or more above normal values
    f. Peak flow has less than 20% variability am-to-am or am-to-pm, day-to-day

2. Mild persistent asthma is characterized as follows:
    a. Symptoms of cough, wheezing, chest tightness, or difficulty breathing 3-6 times a week.
    b. Flare-ups may affect activity level
    c. Night-time symptoms 3-4 times a month
    d. Lung function test FEV is 80% or more above normal values
    e. Peak flow has less than 20-30% variability
3. Moderate persistent asthma is characterized as follows:
    a. Symptoms of cough, wheezing, chest tightness, or difficulty breathing daily
    b. Flare-ups may affect activity level
    c. Night-time symptoms 5 or more times a month
    d. Lung function test FEV is above 60% but below 80% of normal values
    e. Peak flow has more than 30% variability.
4. Severe persistent asthma is characterized as follows:
    a. Symptoms of cough, wheezing, chest tightness, or difficulty breathing that are continual
    b. Frequent night-time symptoms
    c. Lung function test FEV is 60% or less of normal values
    d. Peak flow has more than 30% variability

In contrast, the 2019 Global Initiative for Asthma (GINA) guidelines categorize asthma severity as mild, moderate, or severe. Severity is assessed retrospectively from the level of treatment required to control symptoms and exacerbations, as follows.

- Poor inhaler technique
- Poor medication adherence

- Incorrect diagnosis of asthma, with symptoms due to alternative conditions such as upper airway dysfunction, cardiac failure, or lack of fitness
- Comorbidities and complicating conditions such as rhino sinusitis, gastro esophageal reflux, obesity, and obstructive sleep apnea
- Ongoing exposure to sensitizing or irritant agents in the home or work environment.

Clinical Manifestation of Asthma

According to (Kumar& Clark, 2012) and (Sharon L, Dirksen, Heitkemper&Bucher, 2017) Client suffering from asthma usually exhibits the following factors;

- The attack starts suddenly with productive or non-productive cough
- Difficulty in breathing (dyspnoea)
- There is wheezing respiration
- Chest tightness/pains
- Expiration requires efforts and becomes prolonged
- Anxiety
- Tachycardia
- Cyanosis secondary to hypoxia
- Diaphoresis
- Fatigue
- Altered level of consciousness
- Orthopnea
- Crackle
- Widened pulse pressure
- Restlessness

- Distended neck veins
- History of allergen

Complications of Asthma

- Pneumonia
- Airway obstruction
- Emphysema
- Status asthmaticus
- Atelectasis
- Respiratory failure
- Pneumothorax
- Bronchiectasis
- Chronic and acute bronchitis
- Pulmonary hypertension

Diagnostic Studies

Source (Sharon L, Dirksen, Heitkemper &Bucher, 2014)(Morris &Pearson,2020) and (Smeltzer, Bare, Hinkle,&Cheever,2010)

- Blood and Sputum Eosinophil's- Blood eosinophilia greater than 4% or 300-400/μL supports the diagnosis of asthma, but an absence of this finding is not exclusionary. Eosinophil counts greater than 8% may be observed in patients with concomitant atopic dermatitis. This finding should prompt an evaluation for allergic Broncho pulmonary aspergillosis, Chug-Strauss syndrome, or eosinophilia pneumonia.
- Serum Immunoglobulin E- Total serum immunoglobulin E levels greater than 100 IU are frequently observed in patients experiencing allergic reactions, but this finding is not specific for

asthma and may be observed in patients with other conditions (e.g., allergic Broncho pulmonary aspergillosis, Chug-Strauss syndrome). A normal total serum immunoglobulin E level does not exclude the diagnosis of asthma. Elevated serum IgE levels are required for chronic asthma patients to be treated with omalizumab (Xolair).

- Arterial Blood Gas- Arterial blood gas (ABG) measurement provides important information in acute asthma. This test may reveal dangerous levels of hypoxemia or hypercarbia secondary to hypoventilation and, hence, respiratory acidosis. However, the typical finding in the early stages of an acute episode is respiratory alkalosis. Because of the accuracy and utility of pulse oximetry, only patients whose oxygenation is not restored to over 90% with oxygen therapy require an ABG. The clinical picture usually obviates ABGs for most ED patients with acute asthma.
- Venous levels of PCO2 have been tested as a substitute for arterial measurements, and a venous PCO2 greater than 45 mm may serve as a screening test but cannot substitute for the ABG evaluation of respiratory function.
- Periostin- is a novel biomarker that is currently under investigation as a diagnostic and treatment adjunct. Evidence suggests that periostin is a marker of Th2/eosinophilia inflammation and airway remodeling that occurs with asthma. While there are no therapies currently approved based on periostin testing, several investigational medications are being studied with periostin as a predictor of medication effect. In one phase IIb study, periostin was a good predictor of response to lebrikizumab in patients not controlled on inhaled corticosteroids, with an increase in FEV of 8.2% for high periostin levels compared with placebo with an increase in FEV of 1.6% for low periostin levels. Currently, there is no clinical role for routine periostin testing.
- Pulse Oximetry Assessment- Pulse oximetry measurement is desirable in all patients with acute asthma to exclude hypoxemia. The hypoxemia of uncomplicated acute asthma is readily reversible

by oxygen administration. Oxygenation decreases 4-10 mm Hg with beta-agonist inhalant therapy due to increases in V/Q mismatch. Therefore, all patients with acute asthma should have oxygen saturation measured by pulse oximetry, or they simply should be placed on oxygen therapy. In children, pulse oximetry is often used to grade severity of acute asthma. Oxygen saturation of 97% or above constitutes mild asthma, 92-97% constitutes moderate asthma, and less than 92% signifies severe asthma. Although an isolated pulse oximetry reading at triage is not predictive in most cases (with the notable exception of severe attacks that usually are self-evident on visual inspection), serial monitoring of pulse oximetry status can provide more subtle evidence for or against the need for hospital admission.

- Chest Radiography- The chest radiograph remains the initial imaging evaluation in most individuals with symptoms of asthma. The value of chest radiography is in revealing complications or alternative causes of wheezing and the minor importance of wheezing in the diagnosis of asthma and its exacerbations. Chest radiography usually is more useful in the initial diagnosis of bronchial asthma than in the detection of exacerbations, although it is valuable in excluding complications such as pneumonia and asthma mimics, even during exacerbations. In most patients with asthma, chest radiography findings are normal or may indicate hyperinflation. Findings may help rule out other pulmonary diseases such as allergic Broncho pulmonary aspergillosis or sarcoidosis, which can manifest with symptoms of reactive airway disease. Chest radiography should be considered in all patients being evaluated for asthma to exclude other diagnoses.
- Chest CT Scanning - High-resolution CT (HRCT) is a second-line examination. It is useful in patients with chronic or recurring symptoms and in those with possible complications such as allergic Broncho pulmonary aspergillosis and bronchiectasis. In the last decade, the role of CT in

the imaging of airway disease increased after the development of lung HRCT. The technical progress of thin-section acquisition, highspatial-frequency data reconstruction (i.e., bone algorithm technique), and targeted reconstruction has allowed the visualization of finer details on HRCT scans; these details include air trapping, measurable bronchial wall thickening, atelectasis, centrilobular nodules due to mucous plugging, and acinar nodules due to low-grade inflammatory changes. HRCT findings in bronchial asthma include the following:

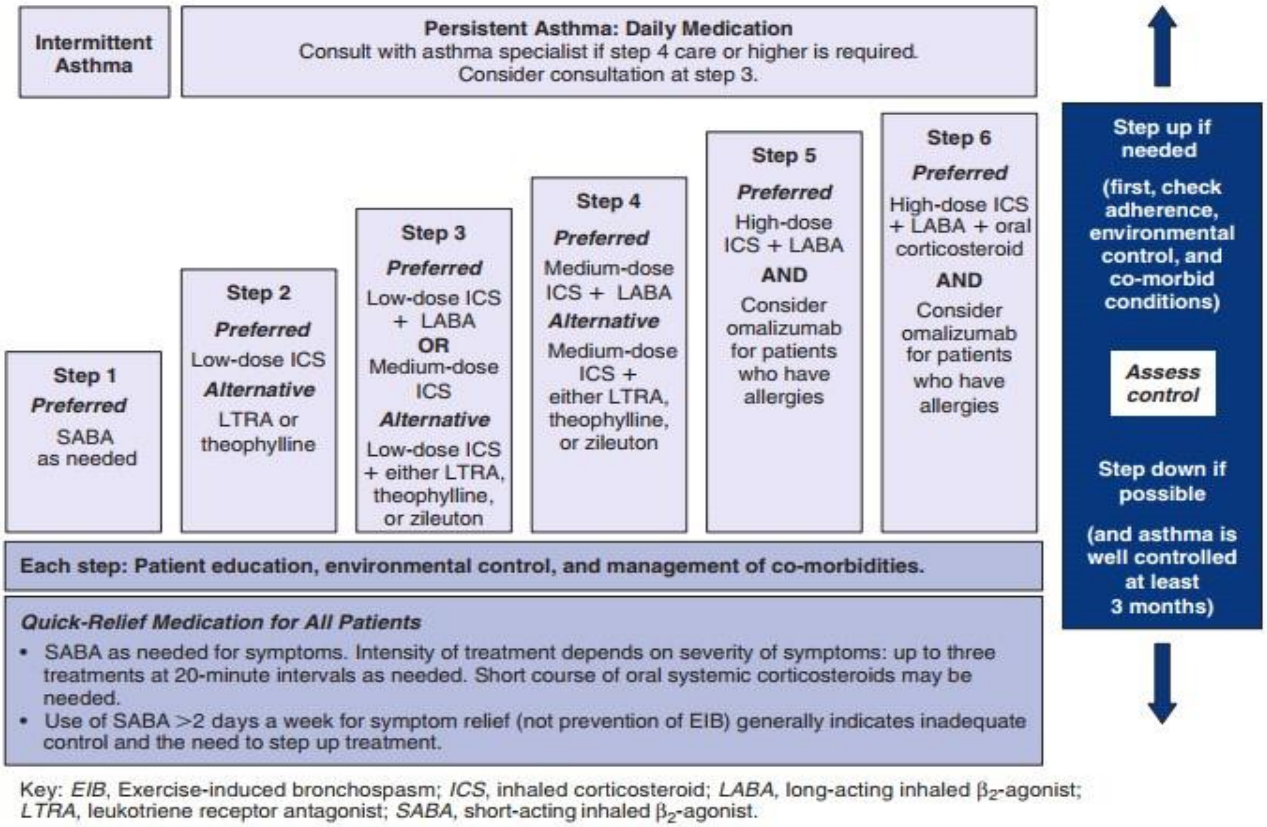
- Bronchial wall thickening
- Bronchial dilatation
- Cylindrical and varicose bronchiectasis
- Reduced airway luminal area
- Mucoid impaction of the bronchi
- Centrilobular opacities, or bronchiolar impaction
- Linear opacities
- Air trapping, as demonstrated or exacerbated with expiration
- Mosaic lung attenuation, or focal and regional areas of decreased perfusions

Medical Management

Goals of Asthma Treatment

- Prevent chronic and troublesome symptoms (e.g., coughing or breathlessness in the night, in the early morning, or after exertion).
- Maintain near-normal pulmonary function.
- Maintain normal activity levels (including exercise and other physical activity)
- Prevent recurrent exacerbations of asthma and minimize the need for emergency department visits or hospitalizations.

- Provide optimal pharmacotherapy with minimal or no adverse effects
- Meet patients' and families' expectation of and satisfaction with asthma care



Key: *EIB*, Exercise-induced bronchospasm; *ICS*, inhaled corticosteroid; *LABA*, long-acting inhaled β_2-agonist; *LTRA*, leukotriene receptor antagonist; *SABA*, short-acting inhaled β_2-agonist.

Figure 2: Stepwise Management of Asthma

- Corticosteroids - Oral steroids are used for short courses (3-10 d) to gain prompt control of inadequately controlled acute asthmatic episodes. They are also used for long-term prevention of symptoms in severe persistent asthma as well as for suppression, control, and reversal of inflammation. Frequent and repetitive use of beta agonists has been associated with beta -receptor sub sensitivity and down-regulation; these processes are reversed with corticosteroids. Example is prednisolone.
- Beta2-adrenergic agonist agents - Beta agonists relieve reversible bronchospasm by relaxing the smooth muscles of the bronchi. These agents act as bronchodilators and are used to treat

bronchospasm in acute asthmatic episodes and to prevent bronchospasm associated with exercise-induced asthma or nocturnal asthma. Example is salbutamol.

- Anticholinergic Agents - The long-acting anticholinergic agent, tiotropium, may be considered for long-term maintenance therapy, but not for acute treatment of asthma exacerbations.
- Nonselective Phosphodiesterase Enzyme Inhibitors - These agents are used for long-term control and prevention of symptoms, especially nocturnal symptoms. Example is cromolyn sodium.
- Monoclonal Antibodies, Anti-asthmatics - Monoclonal antibody effects vary depending on their receptor target. Omalizumab binds to IgE on the surface of mast cells and basophils. It reduces the release of these mediators that promote an allergic response.
  Examples are Mepolizumab, reslizumab, and benralizumab.

Nursing Management

The nursing management is directed to relieving dyspnea, ensure adequate rest, good nutrition, education, psychotherapy, personal hygiene and also observation of the client.

Breathing

- Remove tight clothes around the neck of client if any
- Head end of client's bed is raised up to 45-60 degrees to ensure adequate breathing pattern
- Use adaptive breathing techniques to decrease dyspnea. Monitor pulse oximetry frequently and intervene appropriately,
- Make provision for supplementary oxygen therapy.
- Adequate rest.

Observations

- Monitor and record client's temperature, pulse, respiration and blood pressure every 15minutes for 1hour, 30minutes for the next hour and hourly for the next 2hours until the condition is stable for 4hourly monitoring.
- Monitor for signs of ineffective breathing or respiratory failure.
- Amount and character of sputum is monitored.
- Output and intake are monitored and recorded to rule out other morbidities.

Medication

- Prescribed drugs are served as ordered
- The therapeutic effects and side effects of drugs are monitored and recorded.
- Health Education
- Help client to identify what triggers the condition and how to prevent them
- Teaching the client adaptive breathing techniques are essential
- Encourage the client on mild exercise to improve the cardio-respiratory muscle and to not trigger exercise induced asthma.
- Client is made to know that some drugs are predisposing factors he should devoid buying when it has not been prescribed
- Client is educated to take medications as prescribed and their effects explained

1.11 Validation of Data

Validation is the extent to which a measure, indicator, or a method of data collection possesses the quality of being sound or true as far as it can be judged (Weller, 2014).

The data collected from client and the family were compared to all the data collected from the other healthcare team members as well as laboratory investigations and the literature review. There were no discrepancies in the data collected. Therefore, the data is valid. My client was able to feed me with the necessary information that I needed and all this information was also confirmed by some of the relatives during my home visit (house number AD 121) before and after discharge and all information collected was true. I also go some of the information in from her folder because this was not her first admission at the facility so medical officers and some of the stuff nurses also contributed in given much information obtained. I kept on asking them the same question concerning the data collected initially but there was no difference in answers. Based on the above discussions I can therefore strongly conclude that the data I gathered for Madam D.J. Is valid.

CHAPTER TWO

ANALYSIS OF DATA

2.0 Introduction

Data analysis is a process of inspecting, cleansing, transforming and modelling data with the goal of discovering useful information, suggesting conclusions and supporting decision making. For the purpose of the study, data analysis was done by comparing the data collected from the client and the family with the standards provided in the literature review of chapter one of this report.

2.1 Comparison of Data with Standards

This chapter compares the data gathered from the patient and significant others with the standards reviewed in the literature review. Data that will be emphasized on includes the following:

A. Diagnostic investigations
B. Cause of illness
C. Clinical manifestations
D. Treatment regimen
E. Complications from the illness.

A. Diagnostic Investigations/Tests

Diagnostic tests are approaches used in clinical practice to identify with high accuracy the disease of a particular patient and thus to provide early and proper treatment. This section of this write-up compares the standard diagnostic investigations/tests employed for an ideal asthma and the diagnostic investigations/tests conducted on and for the patient. The following were the

diagnostic investigations and tests conducted on and for the patient in her stay at St. Theresa's Hospital, Nkoranza, and Bono East Region:

i. Full blood count ii.

MPs for parasite iii.

Chest x-ray iv.

Pulse oximetry

assessment

Table 1: Diagnostic Investigations/Tests In Literature Review Compared With Those Carried Out On Patient.

Diagnostic investigations/tests in literature	**Diagnostic investigations/test done for client**
Blood and sputum eosinophil's	Blood and sputum eosinophil's was not done
Serum immunoglobulin E	Serum immunoglobulin E was not done
Arterial blood gases	Artetial blood gases was not done
Venous partial pressure of carbon dioxide	Venous partial pressure of carbon dioxide was not done
Periostin	Periostin was not done
Pulse oximetry assessment	Pulse oximetry assessment was done
Chest radiography	Chest x-ray was done

Chest computed tomography	Chest computed tomography was not done
Full blood count	Full blood count was done

Diagnosis for patient's condition (asthma) was made based on the clinical manifestation she exhibited and the laboratory investigations obtained.

TABLE 2: Diagnostic Investigations/Tests For Madam D.J.

Date	Specimen	Investigation	Results	Normal Values	Interpretation	Remarks
9/11/2021	Blood	Blood film for malaria parasites	Negative	No malaria parasites should be present.	Negative means there is no presence of malaria parasites	No treatment was given.
9/11/2021	Blood	**Full Blood Count** WBC RBC MCV	 6.74×10^9/uL 4.08×10^6/uL 99.4fL 12.0g/dl	 $3.00 - 8.50 \times 10^9$/uL $4.0 - 5.50 \times 10^6$/uL 80 – 100fL Males: 11-18g/dl Female:11-15g/dl	 WBC level is in normal range RBC level is normal values. MCV level is normal values	 No treatment given No treatment given No treatment given

		Hemoglobin estimation		Children:14-16g/dl	Hemoglobin level is within normal values.	No treatment given
9/11/21	Patient's fingers	Pulse oximetry assessment	89% on arrival.	92-100%	Possible or actual hypoxemia	Supplementary oxygen was initiated.
10/11/21	Patient's chest	Chest X-ray	Showed hyperinflation		Normal for an asthmatic client.	

B. Causes of Client's Condition

With reference from the etiologies of asthma discussed in the literature review, assessment of client's home and external environment and the various laboratory investigations carried out, client's condition will be attributed to allergens; dust being the main trigger but still open minded to other possible triggers in her environment.

TABLE 3: Comparison of Clinical Features

CLINICAL FEATURES IN LITERATURE	CLINICAL FEATURES IN PATIENT
The attack starts suddenly with productive or nonproductive cough	Sudden onset with non-productive cough
Difficulty in breathing(dyspnea)	Difficulty in breathing was experienced by the patient
There is wheezing respiration	Wheezing respiration was detected
Chest tightness/pains	Chest tightness and pain present and experienced by the patient
Expiration requires efforts and becomes prolonged	Use of accessory muscles in breathing but no chest or abdominal retractions observed.
Tachycardia	Tachycardia present on first arrival, with heart rate of 112 beats per minutes.
Cyanosis secondary to hypoxia	Hypoxemia present for a short time, did not complicate to hypoxia.

Fatigue	Fatigue present with oxygen demanding activities.
Altered level of consciousness	Level of consciousness not affected as client stayed alert, awake and oriented to time, place, person and event.
Crackle	Auscultation of the lungs did not reveal any crackles in any of the lung fields.
Restlessness	Restlessness was present during the first 20 minutes of her visit to the hospital.
Distended neck veins	Jugular veins not distended
History of allergen	Has had significant records of asthma attacks but the exact allergen(s) not known still.
Sputum production	Scanty but thick white sputum production was present.

D. Specific Medical Treatment

1. Nebulize salbutamol 5mg, 3cycyles, and 15 minutes apart stat.
2. Nebulize salbutamol 5mg, 8 hours interval for 24hours
3. Nebulize ipratropium 2.5mg, 8 hours interval for 24 hours.
4. IV hydrocortisone 100mg, 8 hours interval for 24 hours.
5. Intravenous paracetamol 1g, 8 hours interval for 24 hours.
6. Intravenous 0.9% sodium chloride in 5% dextrose, 1.5L over 24 hours.

7. Tab prednisolone 30mg daily for 7 days.
8. Salbutamol inhaler to be used when necessary.
9. Sere tide inhaler, 2 puffs twice daily for 7 days.
10. Tab salbutamol 5mg, 8 hours interval for 7days.
11. Syrup viscof D 15mls 8 hours interval for 5 days.

TABLE 4: Pharmacology of Drugs/Conservative Treatment Given To Patient

DATE	DRUG	DOSAGE/ ROUTE OF ADMINISTRATION (LITERATURE)	DOSAGE/ ROUTE OF ADMINISTRATION GIVEN TO PATIENT	CLASSIFICATION	DESIRED EFFECT	ACTUAL ACTION OBSERVED	SIDE EFFECT/ REMEDIES	REMARKS
9/11/21	Salbutamol also known as albuterol	Vaporization through the oralnasal route 5mg 3cycle 15 minute apart. Nebulization	Nebulize salbutamol 5mg, 8 hours interval for 24hours	Beta 2-selective adrenergic agonists. Bronchodilators and antiasthma.	To cause Broncho dilation and vasodilation	Gradually relieved and prevented bronchospasms	Restlessness, anxiety , nausea, vomiting , heart burns	No side effect was experienced

9/11/21	Ipratropium	Vaporization through the oralnasal route 2.5td for 24hours	Nebulize ipratropium 2.5mg, 8 hours interval for 24 hours	Anticholinergic Ant muscarinic agent Parasympatholytic	Block vagal mediated reflexes to antagonize the action of acetylcholine. Causes Broncho dilation and inhibits secretion from serous and seromucous glands lining the nasal mucosa	Reduce secretions that accompanies the processes involved in asthma exacerbation	Nervousness, dizziness, dyspnoea, bronchitis, bronchospasms.	No side effect was experienced

TABLE 4: Pharmacology of Drugs/Conservative Treatment Given To Patient continue

DATE	DRUG	DOSAGE/ ROUTE OF ADMINISTRATION (LITERATURE)	DOSAGE/ ROUTE OF ADMINISTRATION GIVEN TO PATIENT	CLASSIFICATION	DESIRED EFFECT	ACTUAL ACTION OBSERVED	SIDE EFFECT/ REMEDIES	REMARKS
9/11/21	Paracetamol	1g, 8hourly x 24hourly intravenously	Intravenous paracetamol 1g, 8 hours interval for 24 hours	Antipyretic Analgesic (non opioid)	Reduces fever and relieves pain	Reduced patient's chest pain	Hepatic toxicity, headache	No side effect was experienced
11/11/21	Prednisolone	Orally 30mg daily for 24 hours	Tab prednisolone 30mg daily for 7 days	Corticosteroids	For its antiinflammatory and immunosuppressive effects	Suppressed the inflammation process of asthma	Muscle weakness, puerperal , hypotension	No side effect was experienced

9/11/21	Hydrocortisone	100mg ,8hours interval for 24hours Intravenously	IV hydrocortisone 100mg, 8 hours interval for 24 hours	Corticosteroid, short acting	Binds to cytoplasmic receptors to initiate antiinflammatory, immunosuppressive (glucocorticoid), and salt-retaining (mineralocorticoid) actions.	Suppressed the inflammation process of asthma	Atrophy at injection site, Na+ and fluid retention, hypokalaemia, hypocalcaemia, increased blood sugar, increased serum cholesterol	No side effect was experienced

TABLE 4: Pharmacology of Drugs/Conservative Treatment Given To Patient continue

DATE	**DRUG**	**DOSAGE/ ROUTE OF ADMINISTRATION**	**DOSAGE/ ROUTE OF ADMINISTRATION GIVEN**	**CLASSIFICATION**	**DESIRED EFFECT**	**ACTUAL ACTION OBSERVED**	**SIDE EFFECT/ REMEDIES**	**REMARKS**

		(LITERATURE)	**TO PATIENT**					
10/11/21	Viscof D. (cetirizine, dextromethorphan and phenylephrine)	15mls ,8hourly x 5days Orally	Syrup viscof D 15mls 8 hours interval for 5 days	Decongestant and cough suppressant.	Blocks histamine produced in the body during allergic reactions, decreasing the activity in the part of the brain that causes coughing, constricting blood vessels to relieve nasal conges tion.	Cough subsided.	Anorexia, abdominal pains, blurring of vision.	No side effect was experienced

E. Complications

With reference to the complications listed in the literature review and the side effects corresponding to each drug as listed in Table 3, the client did not have any complication or side effects in his stay in the hospital. Meanwhile, the client and relatives were educated on the complications of the disease and the side effects of the individual drugs, and that if they should see any of them, should report back to the hospital or to any hospital or clinic near them for review.

2.2 Patient/Family Strength

1. Patient was put in a fowler's position in bed.
2. Patient could eat 6-10 teaspoons of porridge served.
3. Patient was willing to learn about the condition and treatment regimen.
4. Patient asked a lot of questions about her condition.
5. Patient could verbalize the intensity and location of the pain.

2.3 Patient's Health Problems

The following health problems were identified in the course of care of client through interaction, discussion and question with client and his relatives, also through observation, assessment and interaction with staff. The problems include actual and potential ones;

1. Patient complained of difficulty in breathing (dyspneoa)
2. Patient complained of loss of appetite
3. Patient had less knowledge about disease condition and outcome
4. Patient is anxious
5. Patient complained of chest pains.

2.4 Nursing Diagnosis

Source: NANDA 2018 – 2020)

1. Ineffective breathing pattern related to excessive mucus production and bronchospasm.
2. Imbalance nutrition less than body requirement related to inadequate dietary intake as evidenced by poor appetite for food.
3. Deficient knowledge related to causes, pathophysiology, prevention, treatment and complications of bronchial asthma
4. Anxiety related to unknown outcome of disease condition
5. Impaired comfort (chest pain) related to bronchospasms.

CHAPTER THREE

PLANNING FOR PATIENT AND FAMILY CARE

3.0 **Introduction**

Planning is the process in which the nurse and patient together consider the goals to achieve in meeting the patient's actual and potential problems in everyday life and draw an individual care plan (Weller, 2014).

This is the third phase of the nursing process; it is concerned with the planning care of the patient and family which is about designing strategies to achieve a goal. It involves prioritizing patient's health problems, nursing orders, nursing interventions and evaluation of the patient's care plan which involves the setting of patient and family care, objective/ outcome criteria and outline the nursing care strategies in the plan.

3.1 Objective /Outcome criteria

Objectives are statements that describe specific realistic observation and responds of the patient to the nursing interventions.

Objective/Outcome criteria

1. Patient will be relieve of breathing difficulties with 10 minutes as evidenced by;
    a. Patient verbalizing she can breathe well
    b. Nurse observing patient breathing well without any difficulites
2. Patient would regain her normal nutritional pattern throughout the period of hospitalization evidenced by;
    a. Patient verbalizing she has regained her appetite
    b. Nurse observing patient consume ¾ of every meal served.

3. Patient will gain adequate knowledge about the disease and its treatment regimen within 24 hours of hospitalization as evidenced by;
    a. Patient verbalizing understanding of the condition
    b. Nurse observing patient adhere to the treatment regimen
4. Patient would be relieved of anxiety within 24hours as evidenced by;
    a. Patient verbalizing that she is no longer anxious.
    b. Nurse observing patient cooperate with care and appears relaxed.
5. Patient would be relieved of pain within 24hours as evidenced by;
    a. Patient verbalizing that the intensity of pain has reduced using the pain rating scale.
    b. Nurse observing patient in a relaxed and comfortable posture.

Table 5: Nursing Care Plan for Madam D.J and Family

DATE/ TIME	NURSING DIAGNOSIS	OUTCOME CRITERIA	NURSING ORDERS	NURSING INTERVENTION	DATE/ TIME	EVALUATION	SIGN
9/11/21 3:00pm	Ineffective breathing pattern related to excessive mucus production and bronchospasm	Patient will be relieve of breathing difficulties with 10 minutes as evidenced by; a. Patient verbalizing she can breathe well b. Nurse observing patient	1.Reassure by providing psychological support and educating client on the disease condition with the proposed treatment modalities. 2.Assess and record respiratory rate and other characteristics every four hours.	1. Client was reassured by providing psychological support and educating on the disease condition with the proposed treatment modalities. 2. Respiratory rate and other characteristics were monitored and recorded every four hours: there were apnea, hyperventilation, ataxic patterns and tachypnea.	9/11/21 3:10pm	Goals fully met as; a. Patient verbalized she could breathe well. b. Nurse observed patent breathe well without any difficulties.	A.M

		breathing well without any difficulties	3.Auscultate breath sounds at least every 4 hours. 4.Utilize pulse oximetry to check oxygen saturation and pulse rate every four hours. 5.Observe the presence of sputum for amount, color, consistency 6.Evaluate skin color, temperature, capillary refill and peripheral cyanosis. 7.Maintain a clear airway.	3. Breath sounds were auscultated at least every 4 hours: grunt and wheeze sounds were heard in the first few hours of hospitalization. 4. Pulse oximetry was used to check oxygen saturation and pulse rate every four hours. 5. Scanty thick white sputum production was observed. 6. Skin color was normal, temperature was within normal			

			8.Suction secretions, as necessary 9.Encourage frequent rest periods and teach the patient to pace activity. 10. Help the patient with Activities of Daily Living, as necessary. 11. Encourage social interactions with others that	ranges, capillary refill was less than 3 seconds. 7. Patient was encouraged to mobilize her own secretions via effective coughing to facilitate adequate clearance of secretions whenever secretions are seen. 8. Secretions were scanty hence no suctioning done. 9. Frequent rest periods were encouraged.			

			have medical diagnoses of ineffective breathing pattern. 12. Educate patient about medications: indications, dosage, frequency, and possible side effects. Incorporate review of the metered-dose inhaler and nebulizer treatments, as needed. 13. Administer prescribed bronchodilators.	10. Activates of Daily Living were done for patient or assisted to do them, as necessary. 11. Social interactions with others that have medical diagnoses of ineffective breathing pattern were arranged encouraged. 12. Patient was educated on medications: indications, dosage, frequency, and possible side effects. Review of the metereddose inhaler and nebulizer treatments were added up in the education.			

				13. Nebulize salbutamol and ipratropium were administered as prescribed.			

: Nursing Care Plan for Madam D.J and Family

Table 5

DATE/ TIME	NURSING DIAGNOSIS	OUTCOME CRITERIA	NURSING ORDERS	NURSING INTERVENTION	DATE/ TIME	EVALUATION	SIGN
9/11/21 At 3:30pm	Anxiety related to unknown outcome of disease condition	Patient would be relieved of anxiety within 24hours as evidenced by; a. Patient verbalizing that she is no longer anxious. b. Nurse observing patient cooperate with care and appears relaxed.	1. Assess patient's level of anxiety. 2. Reassure patient to allay fear and anxiety. 3. Note expression of distress. 4. Orientate patient and relatives to the	1. Patient's anxiety level was assessed, which indicated moderate anxiety. 2. Patient was reassured to allay fear and anxiety. 3. Expression of distress such as restlessness was noted.	10/11/21 At 3:30pm	Goal fully met as; a. Patient verbalized she is no longer anxious b. Nurse observed patient cooperated with care and appeared relaxed.	A.M

			ward and its annexes.	4. Patient was orienteated to the ward and its annexes.			

: Nursing Care Plan for Madam D.J and Family

Table 5

DATE/ TIME	NURSING DIAGNOSIS	OUTCOME CRITERIA	NURSING ORDERS	NURSING INTERVENTION	DATE/ TIME	EVALUATION	SIGN
9/11/21 4:00pm	Impaired comfort (chest pain) related to bronchospasms	1.Patient will verbalize a pain score of less than 3 on a pain scale within 24 hours of her hospitalization. 2.The patient will demonstrate how to use coping mechanisms when in distress within 24hours	1.Reassure patient. 2.Assess the patient's pain level. Use appropriate pain scales to assess pain levels. 3.Obtained detailed history about the chest pains. 4.Assess the patient's coping strategies to cope with discomfort. 5.Provide several relaxation techniques that may decrease discomfort.	1. Patient was reassured of competent care from the health team. 2. Pain rating scale (0-10) was used to assess patient's chest pains. She rated her chest pains as 7. 3. History about chest pain obtained: mostly felt during episodes of breathlessness, the pain is felt at the sternum region of the chest. It does not respond to rest or exercise.	10/11/21 4:00pm	Goals fully met as; 1. Patient verbalized a pain score of less than 3 on a pain scale. 2. The patient demonstrated how to use coping mechanisms when in distress.	A.M

		of her hospitalization.	6.Administer pain medication as ordered.	4. Client does use pain medications mostly bought from over the counter to manage her chest pains. 5. Relaxation techniques like guided visualization, deep breathing exercises and music therapy were introduced to patient. She responded very well and preferred deep breathing exercises. 6. Intravenous paracetamol 1g served at 8 hourly frequency.			

Table 5

DATE/ TIME	NURSING DIAGNOSIS	OUTCOME CRITERIA	NURSING ORDERS	NURSING INTERVENTION	DATE/ TIME	EVALUATION	SIGN

: Nursing Care Plan for Madam D.J and Family

10/11/21 8:00am	Deficient knowledge related to causes, pathophysiology, prevention, treatment and complications of bronchial asthma	Patient will gain adequate knowledge about the disease and its treatment regimen within 24 hours of hospitalization as evidenced by; a. Patient verbalizing understanding of the condition b. Nurse observing patient adhere to	1.Assess current knowledge base of client on the condition 2.Assess for readiness of learning new information about the illness. 3.Determine the patient's learning style. 4.Educate patient on the causes, treatment	1.Client's current knowledge base was assessed and she had very little knowledge about asthma. 2.Client was ever ready and keen to learn new information about her condition. 3.The patient wanted a gradual paced learning style. 4.Patient was educated on the causes, treatment modalities,	11/11/21 8:00am	Goal fully met as evidenced by 1.Client verbalizing accurate information about condition and treatment by discharge. 2.Client recognizing when and how to seek for help to learn new information about any condition by discharge.	A.M

		the treatment regimen	modalities, prevention and signs and symptoms of asthma. 5. Provide different learning materials such as videos, paper or demonstrations. 6. Encourage patient to ask questions. 7. Create a learning friendly environment.	prevention and signs and symptoms of asthma. 5. Different learning materials such as videos, paper or demonstrations were employed for use in teaching. 6. Patient was encouraged to ask questions. 7. Learning friendly environment such as one with less noise and interference was created to aid in teaching and learning.			

			8.Adjust pace and teaching methods to client's style. 9.Give praise and encouragement during learning sessions. 10. Inquire feedback about the learning process. 11. Encourage patient to talk to others with similar experiences/condition	8.Gradual paced teaching methods was adopted to help patient get the best out of the learning process. 9.Praise and encouragement were given during learning sessions. 10. Patient gave feedback that she was grasping the concept very. 11. Patient was encouraged to talk to others with similar experiences/condition.			

			12. Provide for patient where and how to appropriately obtain new information about this current condition and any other condition.	12. Patient was shown other ways to appropriately obtain new information about any condition, such as walking into any health facility or listening to accredited health talks on various Medias.			

Table 5: Nursing Care Plan for Madam D.J and Family

DATE/ TIME	NURSING DIAGNOSIS	OUTCOME CRITERIA	NURSING ORDERS	NURSING INTERVENTION	DATE/ TIME	EVALUATION	SIGN

10/11/21 At 4:00pm	Imbalanced nutrition less than body requirement related to inadequate dietary intake as evidenced by patient verbalizing she has poor appetite for food.	Patient would regain her normal nutritional pattern throughout the period of hospitalization evidenced by; a. Patient verbalizing she has regained her appetite b. Nurse observing patient consume ¾ of every meal served	1. Reassure patient that she would regain her normal eating pattern 2. Perform oral hygiene to boost appetite. 3. Involve patient/family in planning of diet and serve patient's food at right intervals (3-4 times) daily.	1. Patient was reassured that her normal eating pattern will be restored. 2. Patient brushed teeth twice daily and mouth rinsed before and after meals 3. Patient was always asked about the food she will like to eat and food was served at right interval (3-4 times) daily.	12/11/21 At 8:30am	Goal fully met as; a. Patient verbalized she has regained her appetite. b. Nurse observed patient consume almost all of her meals served.	A.M

			4. Serve food attractively and provide pleasant environment during meals 5. Congratulate patient to stimulate her appetite and to encourage her to eat well.	4. The environment was always kept neat and free from nauseated substance such as vomits, urine, stool and dirty linen. 5. Patient was congratulated after the meal.			

CHAPTER FOUR

4.0 IMPLEMENTATION OF PATIENT AND FAMILY CARE PLAN

Implementation is the process by which the nurse and the patient put into practice and the planned care (Weller,2014).It involves putting into action the nursing and medical orders to meet the patient's need .During the process of implementation ,the patient is the central focus of activities. This chapter presents the actual nursing care rendered to the patient and family throughout hospitalization period. This covers;

- Summary of actual nursing care
- Preparation of patient and family for discharge and rehabilitation
- Home visits or follow-up or continuity of care

4.1 Summary of Actual Nursing Care

For the purpose of organization, the actual nursing care has been discussed on daily basis.

First Day of Admission (9th November, 2021)

Madam D.J, being accompanied by the eldest daughter, visited the Emergency ward of St. Theresa's Hospital, Nkoranza, on the 9th November, 2021, around 3:00pm, in a breathless and restless state. She was received immediately in an already prepared admission bed, which was later propped up to a 45^0C angle. Nebulize salbutamol 5mg 3 cycles, each 15 minutes apart was initiated while continuous focused assessment was also ongoing. Vital signs were checked and recorded on arrival as indicated in the appendix.

Per the nursing assessment, three nursing diagnosis were made on the first day of admission:

At 3:00pm, the patient had difficulty in breathing. Nursing diagnosis was formulated as ineffective breathing pattern related to excessive mucus production and bronchospasm. An objective was set to maintain patient's breathing pattern effectively within 10 minutes of hospitalization as evidenced by relaxed breathing at normal rate and depth and absence of dyspnoea. The following interventions were made: Patient was reassured by providing psychological support and educating on the disease condition with the proposed treatment modalities. Respiratory rate and other characteristics were monitored every four hours: there were apnea, hyperventilation, ataxic patterns and tachypnoea. Breath sounds were auscultated at least every 4 hours: grunt and wheeze sounds were heard in the first few hours of hospitalization. Patient preferred sitting up positions in times of acute episodes, hence, was nursed in semifowler's position most of the times. Pulse oximetry was used to check oxygen saturation and pulse rate every four hours. Some observations made were: Scanty thick white sputum production was observed, Skin colour was normal, temperature was within normal ranges, capillary refill was less than 3 seconds. Patient was taught diaphragmatic and sustained deep breathing techniques. She was encouraged to have effective coughing to facilitate adequate clearance of secretions to maintain clear airway. Madam D.J. was never left alone during acute episodes of respiratory distress. She was educated on medications: indications, dosage, frequency, and possible side effects. Supplementary oxygen therapy was administered till patient had a cleared airway. Prescribed mucolytic and bronchodilators were administered.

At 3:10pm, the objective set to relieve patient of breathing difficulties was evaluated and goal was fully met as; Patient verbalized she could breathe well and Nurse observed patent breathe well without any difficulties.

At 3:30pm, patient was anxious. A nursing diagnosis of Anxiety related to unknown outcome of disease condition was formulated. An objective of Patient would be relieved of anxiety within 24hours as evidenced by; Patient verbalizing that she is no longer anxious and Nurse observing patient cooperate with care and appears relaxed was set. Nursing interventions implemented includes; Patient's anxiety level was assessed, which indicated moderate anxiety, Patient was reassured to allay fear and anxiety, Expression of distress such as restlessness was noted and Patient was orientated to the ward and its annexes.

At 4:00pm patient complained of chest pains and a nursing diagnosis was made as impaired comfort (chest pains) related to bronchospasms. An objective was set to relieve patient of pain within 24 hours of hospitalization. The following interventions were made; Patient was reassured of competent care from the health team. Pain rating scale (0-10) was used to assess patient's chest pains. She rated her chest pains as 7 in her first few hours of her stay in the hospital. History about chest pain was obtained: mostly felt during episodes of breathlessness, the pain is felt at the sternal region of the chest and it does not respond to rest or exercise. Client does use pain medications mostly bought from over the counter to manage her chest pains. Relaxation techniques like guided visualization, deep breathing exercises and music therapy were introduced to patient and she responded very well and preferred deep breathing exercises. Intravenous paracetamol 1g was served at 8 hourly frequency to help with client's chest pains.

At 6:00pm patient vital signs were checked and recorded in the appendix.

By the time patient went to slept in that evening, patient was already recuperating very well. The wheeze sounds and the grunting sounds have reduced significantly. Chest pains ratings have gone to 4 as verbalized by the patient. She slept at 8:30pm.

Second Day of Admission – (10th November, 2021)

At 8:00am Based on health history, assessment and observation, a nursing diagnosis was made as sedentary lifestyle related insufficient knowledge of health benefits associated with physical exercise. An objective was set to help make patient understand the importance of physical exercise within the period of hospitalization. The following interventions were made: Patient was taken through the necessity for regular activity like walking. Patient was taken for a walk and also engaged in assisted range of motion exercise so as to determine the optimal exercise heart rate. Patient was educated on the necessity to engage in social activities.

At the same time a nursing diagnosis was made as deficient knowledge related to causes, pathophysiology, prevention, treatment and complications of bronchial asthma. An objective was set to help make patient get accurate information on condition and treatment. The following interventions were made: Patient's current knowledge-base was assessed, a cordial relationship was established with patient, patient was taken to a conducive environment (in a quiet place) which made the education a success, patient was ever ready and keen to learn new information about the condition, and patient was educated on the causes, treatment, modalities and symptoms of asthma. Patient was encouraged to ask questions. Patient was educated on the necessity to engage in social activities.

It was reported that the patient did not get any episode of breathlessness during the evening shift, and thus, the supplementary oxygen therapy was weaned off around 9:00pm yesterday. Client had an interrupted sleep throughout the night. It was observed that patient lacked interest in doing any activity on her own. During ward round around 8:45am, patient lodged no new complaints. No wheezing breath sounds were heard during auscultation and also no grunt sound. Doctor's orders were as follow;

1. To continue Nebulize salbutamol 5mg, 8hourly for next 24hours.
2. Intravenous hydrocortisone 100mg, 8hourly for next 24hours
3. Nebulize ipratropium 0.4mcg, 8hourly for next 24hours and to be given alongside the salbutamol.
4. Tablet Paracetamol 1g, 8hourly for 5days.

After the ward rounds patient was served with koko with bread as requested. I had a conversation with the patient for about 30 minutes and resumed to work.

At 2:00pm patient's vital signs were checked and recorded as in the appendix. She was again served with rice and stew in the afternoon.

At 3:30pm, the objective set to relieve patent of anxiety was evaluated and goal was fully met as; Patient verbalized she is no longer anxious and Nurse observed patient cooperated with care and appeared relaxed.

At 4:00pm the objective set to relief patient of pain was evaluated and goal was fully met as patient verbalize a pain score less than 3 on a pain rating scale and patient demonstrated how to use coping mechanisms when in distress.

At 4:00pm, patient complained of loss of appetite. Therefore a nursing diagnosis of Imbalance nutrition less than body requirement related to inadequate dietary intake as evidenced by poor appetite for food was formulated. An objective of Patient would regain her normal nutritional pattern throughout the period of hospitalization evidenced by; Patient verbalizing she has regained her appetite and Nurse observing patient consume ¾ of every meal served was set. Nursing interventions implemented includes; Patient was reassured that her normal eating pattern will be restored, Patient brushed teeth twice daily and mouth rinsed before and after meals,

Patient was always asked about the food she will like to eat and food was served at right interval (3-4 times) daily, the environment was always kept neat and free from nauseated substance such as vomits, urine, stool and dirty linen and patient was congratulated after the meal

At 6:00pm, vital signs were checked and recorded as indicated in the appendix and due medications were administered. She was served with light soup for supper.

At 10:00pm, patient's vital signs were checked and recorded as indicated in the appendix. Patient slept at 10:10pm.

Third Day of Admission – (11th November, 2021)

Patient slept well and woke up around 7:30am. She was able to perform all her personal hygiene without assistance. She was served with oat without bread as breakfast as requested by the patient.

At 8:00am, the objective set to make patient gain adequate knowledge about the disease and its treatment regimen was evaluated and goal was fully met as; Client verbalizing accurate information about condition and treatment by discharge and Client recognizing when and how to seek for help to learn new information about any condition by discharge.

Patient has made remarkable positive progress in health this day. This morning, client was seen walking on her own on the corridor of the ward. According to her, she had understood the necessity of exercise of any form. She did not lodge any new complains today too. No reports of breathlessness, chest pains and restlessness. She looked generally stable now. During ward rounds today, the doctor made the orders:

Intravenous 0.9% sodium chloride in 5% dextrose, 1.5L over 24 hours.

- Tab prednisolone 30mg daily for 7 days.
- Salbutamol inhaler to be used when necessary.
- Sere tide inhaler, 2 puffs twice daily for 7 days.
- Tab salbutamol 5mg, 8 hours interval for 7days.
- Syrup viscof D 15mls 8 hours interval for 5 days.

For possible discharge tomorrow if the condition remained same. With the oral medication.

Client education was continued today. Today's education focused on the medications and possible triggers for her exacerbations.

At 4:30pm, I left the hospital to patient's home for my first home visit.

At 6:00pm, patient's vital signs were checked and recorded in the appendix and was served with Tuozafi and ayoyo soup in the evening. She sat outside the ward with her daughter for a while before going to bed. She slept at 8:45pm.

Fourth Day of Admission (12th November, 2021) Day of Discharge

Patient woke up around 6:00am and performed all her personal hygiene without assistance. She was served with waakye as requested by Madam D. J. The patient did not present any new problem but the necessary nursing activities were carried out. She could walk in the ward, brush her teeth, and bath without any assistance. The vital signs were normal and recorded as shown in the appendix and the bed was properly laid out for her comfort. She was educated on the cause, treatment and prevention of the condition bronchial asthma).

At 8:30am, the objective set to regain patient's normal nutritional pattern was evaluated and goal was fully met as; Patient verbalized she has regained her appetite and Nurse observed patient consume almost all of her meals served. Patient was discharged today on her oral medications.

She was to report to the hospital for review on 16th November, 2021. IV cannular insitu was removed from patient. She was able to answer accurately most of questions asked about her present condition. I help them to pack their belongings after they had gone through the protocols of discharge in the hospital. Madam D.J and the family were escorted to the hospital gate and bade them farewell. They left the hospital around 11:48am.

4.2 Preparation of Client and Family for Discharge and Rehabilitation

The preparation for discharge commenced at the time of admission through to the time of discharge. The disease condition was thoroughly explained to the patient and the relatives ranging from the causes, signs and symptoms, complications and preventions. The patient and the family were continually educated that as the condition improves and becomes satisfactory, she would be discharged home.

However, environmental control measures such as avoidance of exposure to smoke, dust, gases, and irritants were thoroughly explained to the patient.

4.3 Follow Up/Home Visit/Continuity of Care

Home visit is a family-nurse contact which allows the health worker to assess the home and family situation in order to provide the necessary nursing care and health related services. The purpose of home visit is to find out needs of patient/family and community in relation to health, socioeconomic and cultural aspects, to provide teaching regarding the prevention and control of

diseases, to assess the living condition of the patient/family, and to establish a close relationship between the nurses and the patient/family.

4.3.1 First Home Visit – 11th November, 2021

My first visit to patient house at "point 4" was on 11th November, 2021 at 4:30pm while she was still on admission. The main aim of the visit was to acquaint myself with the patient's home environment, to familiarize myself with the other family members, to confirm information given to me about the family and their home environment, to find out their health needs and assist towards effective solutions to any health problems that may be identified and to find a healthcare provider I would hand over patient to during the termination for care.

I was led to the house by her son on a motor bike. I was warmly welcomed by her relatives at home. Upon several interactions, I took my time to assess the environment of the patient and to give an appropriate education on how to improve their health status.

This visit was a very short one because it was made to know the immediate environment that the client lives in, to know the available resources that can be taped into, for the care of the client in the house when she was finally discharged to the house. The visit was made with the son. The house is close to a federal road that is under construction. The house is a semi-detached two bedrooms house with no internal toilet facility nor portable drinking water. The family accesses these amenities from a nearby public outpost that is about 25meters away. The family also has adopted the "dig and burry" method of refuse disposal. The house is located close to an untarred road, which often becomes dusty in the dry seasons.

A quick observation revealed that there was inadequate ventilation in the whole house as many of their belongings had been positioned in the way of ventilations (most of the windows). They were advised to reposition the items to allow for adequate ventilation. The relatives and the patient were advised against exposing themselves to the trigger factors of asthma. A pregnant woman who was a neighbour to Madam D.J was living in the home.

I asked her for the healthcare facility in their town of which she told me that there is no healthcare facility in their town but there was a nurse in the town. She took me to Nurse K.P who live about 3 houses from theirs. I introduced myself to the staffs and told them I am a student and I was conducting study with a patient named Madam D.J. and then I was looking for nurse who would continue to take care of patient's health needs after I terminate my care. He assured me that he was going to care for the patient for me when it gets to the termination of care. We exchanged contact and I thanked him for his willingness to help. There were no vulnerable people in the house like children under 5 and no any pregnant women and i left at 5:40pm

4.3.2 Second Home Visit (15th NOVEMBER, 2021)

This day was the day before the review date. On arrival into their home, I was welcomed by the Madam D.J who was up and doing. She looked healthy and was looking like someone who was not living a sedentary lifestyle. A query into the health of the client revealed that she had been in an optimal health since her discharge from the hospital. She had not ever used the salbutamol inhaler since discharge but the Sere tide inhaler and the rest of medications were being taken as were prescribed at the hospital. Compliance was very good. There had been repositioning of their belongings in the house to allow proper and adequate ventilation. No side effects from the medications and the treatment modalities in the hospital had not been observed yet. I reminded them about the review date and they accepted to join me at the hospital tomorrow.

I sought for permission and left the house at 3:00pm.

4.3.3 Review Date - 16th November, 2021.

I was joined by Madam D.J at the hospital for the review. We checked in at the Out-Patient department and my client's vital signs were checked and recorded as

- Temperature = 36.9^{o}c
- Pulse = 96 bpm
- Respiration = 20cpm
- Blood pressure: 126/96mmHg

Madam D.J was seen by a doctor at consulting room 3. After the doctor had finished his physical examination, he said my patient was recovering very well and that she should continue her medications that were in the house. The doctor then educated Madam D.J on asthma, the need to avoid triggers and staying health.

4.3.4 Third Home Visit – (21st November, 2021)

My last official visit to the patient's house was on 21st November, 2021. My aim was to find out how the patient was faring. I encouraged the family to continue to monitor their mother so that she does not engage in activities that could predispose her to the condition again. Some of these activities include:

- Emotional upset
- Use or inhalation of perfume
- Exposure to allergens such as dust, pollens, cold temperature and smoky environment and groundnuts.

After all was said and done, I thanked the family and my patient for allowing me to take care of her and also to use her as a reference point to write my care study. I bade her and the family farewell and promised to visit them again when I could. I sought for permission and left the house at 2:30pm.

CHAPTER FIVE

EVALUATION OF CARE RENDERED TO THE PATIENT AND FAMILY

5.0 Introduction

Evaluation is the act of considering or examining something in order to judge its value, quantity, importance, extent or condition (Weller, 2014).This is the final phase of the nursing process which deals with the assessment of the effectiveness of the nursing intervention and care that were carried out and how the patient and family responded to them. This chapter talks about the following;

- **Statement of evaluation**

- **Amendment of the patient /family care plan for partially met objectives**
- **Termination of care**

5.1 Statement of Evaluation

The nursing care was based on the nursing process. During the period of her stay at the hospital a nursing care plan was designed to aid in delivery of quality care to the patient with emphasis on the nursing diagnosis. During the nursing care actual and potential problems were identified, objectives were set, plans for patient and family care were implemented and later evaluated.

1. **Patient's was relieved of breathing difficulties.**

Ineffective breathing pattern related to excessive mucus production and Broncho spasm – This nursing diagnosis was identified on the day of admission (9th November, 2021). An objective to get patient to maintain an effective breathing pattern within 24 hours of her admission and maintain that throughout the course of admission was set up. The formative evaluation was done alongside every vital sign monitoring, to check the progress of the ineffective breathing. The summative evaluation was done on the 10th November, 2021, and the objective was found to have been fully met. The client also maintained an effective breathing pattern till the day of discharge as evidenced by client not experiencing any episode of breathlessness and difficulty in breathing. Client had relaxed breathing at normal rate and depth throughout her period of hospitalization.

2. **Patient's nutritional pattern was regained**

On 9th November, 2021 at 10:30am, Patient complains of loss of appetite and a nursing diagnosis of Imbalance nutrition less than body requirement related to inadequate dietary intake as evidenced by poor appetite for food was formulated. An objective of Patient would regain her

normal nutritional pattern throughout the period of hospitalization evidenced by; Patient verbalizing she has regained her appetite and Nurse observing patient consume ¾ of every meal served was set. Nursing interventions implemented included; Patient was reassured that her normal eating pattern will be restored, Patient brushed teeth twice daily and mouth rinsed before and after meals, Patient was always asked about the food she will like to eat and food was served at right interval (3-4 times) daily, The environment was always kept neat and free from nauseated substance such as vomits, urine, stool and dirty linen and Patient was congratulated after the meal.

3. **Patient gained adequate knowledge about her disease**

On 10th November, 2021 at 8:00am, during my conversation with it was released that patient lack information about bronchial asthma. There a nursing diagnosis of Deficient knowledge related to causes, pathophysiology, prevention, treatment and complications of bronchial asthma was formulated. An objective of Patient will gain adequate knowledge about the disease and its treatment regimen within 24 hours of hospitalization as evidenced by; Patient verbalizing understanding of the condition and Nurse observing patient adhere to the treatment regimen was set. Nursing interventions implemented includes; Client's current knowledge base was assessed and she had very little knowledge about asthma, Client was ever ready and keen to learn new information about her condition, the patient wanted a gradual paced learning style, patient was educated on the causes, treatment modalities, prevention and signs and symptoms of asthma, different learning materials such as videos, paper or demonstrations were employed for use in teaching, patient was encouraged to ask questions, learning friendly environment such as one with less noise and interference was created to aid in teaching and learning, gradual paced teaching methods was adopted to help patient get the best out of the learning process, praise and

encouragement were given during learning sessions, patient gave feedback that she was grasping the concept very, patient was encouraged to talk to others with similar experiences/condition, patient was shown other ways to appropriately obtain new information about any condition, such as walking into any health facility or listening to accredited health talks on various medias.

On 11th November, 2021 at 8:00am, the objective was evaluated and goal was fully met as; patient verbalizing accurate information about condition and treatment by discharge and patient recognizing when and how to seek for help to learn new information about any condition by discharge

4. **Patient/family were relieved of anxiety**

Anxiety related to health and environment - this nursing diagnosis was identified on the 10th November, 2021. An objective to help client and family acquire necessary basic knowledge on asthma that it can be resolved by the time she is discharge was set. The objective was found to be fully met on the day of evaluation; 12th November, 2021 as evidenced by client answering some basic questions on asthma.

5. **Patient was relieved of chest pains**

Impaired comfort (chest pain) related to bronchospasms – this nursing diagnosis was also identified on the day of admission. An objective to get client to experience a pain rate score less than 3 within 24 hours from the time of identification of this nursing diagnosis was made. Pain was screened alongside when every client's vital signs were been checked, and also, when it was necessary. This formed the formative evaluation. The summative evaluation was done 10th

November, 2021, where the objective was found to have been fully met, as evidenced by client verbalizing pain rate score of 1.

Impaired gaseous exchanged related respiratory muscle fatigue – also identified on the first day of admission. An objective to get client maintain open airway within 48 hours from the hour of first hospitalization. Summative evaluation was done on the 11th November, 2021 and it was found that the objective was fully met, as evidenced by client maintaining clear open airway with normal breath sign.

5.2 Amendment of Nursing Care

No amendment was considered as all goals and objectives were fully met as demonstrated in the care plan for patient. Objectives set in the care of my patient was adequately met.

5.3 Termination of Care

Preparation of this phase for my patient care started on the day of admission and was gradually and tactfully carried out till the day of discharge. During my first interaction with patient and her family, I made them understood that the hospital was a temporal place as her condition got better, she would be discharged home. By the time patient was discharged, she was psychologically prepared for it. On the 12th of November, 2021, my client was discharged home and asked to come back in a week time for review.

Patient and relatives were properly educated on the causes and prevention of bronchial asthma, and manner of preventing themselves from the trigger factors. Environmental, diet and personal hygiene were properly emphasized. Patient was also advised on the benefit of reporting to the hospital when she experience any sign of illness. The patient and the relatives were happy and

thanked me for the necessary nursing care rendered to Madam D.J throughout her hospitalization and the time thereafter her hospitalization.

On my last official home visit, I informed them that now that Madam D.J.'s health has been restored; the care has officially ended. I advised them to report to the nearest health facility in case of any illness. They were not surprise to hear of the termination of care due to prior notice. She was however handed over fully to Nurse K.P, who promised to take very good care of her. I told them I would visit them unofficially whenever I had the chance. They were happy and said that they would miss my care and would strictly adhere to all instructions given to them. It was a moment to remember when I told them of my intention to leave. There was no separation anxiety as patient and the relatives had enough psychological preparations from the day of admission till discharge but it was still difficulty bidding them farewell. I sought for permission and left at 4:30pm.

CHAPTER SIX

SUMMARY AND CONCLUSION

6.0 Introduction

This care study is a written report of the nursing care rendered to Madam D.J, a 51 years old woman who was admitted to the Emergency ward first then trans out to Female Medical Ward of the St. Theresa's Hospital, Nkoranza, on the 9th of November, 2021. She was admitted with a diagnosis of bronchial asthma. Interviews, physical examination, laboratory and radiological

interventions were carried out to confirm the diagnosis. She was put on treatment, assessment done and a number of problems identified. Care plan was drawn and implemented which led to the remission of signs and symptoms of the condition and treatment modification of asthma. I also made a number of home visits to client.

6.1 Summary of care rendered

Madam D.J., a 51-years-old woman was admitted to the Females Medical ward of St. Theresa's Hospital, Nkoranza with the diagnosis of Bronchial Asthma. Vital signs checked and recorded on arrival as follows:

Temperature – 36.2 degrees Celsius

Blood pressure – 140/79mmhg

Respiration – 29cpm

Oxygen saturation – 96%

Pulse – 105bpm

She spent a total of four days at the hospital. her period of hospitalization five (5) health problems were identified; Patient complained of difficulty in breathing (dyspneoa), Patient complains of loss of appetite, Patient had less knowledge about disease condition and outcome, Patient is anxious and Patient complained of chest pains. Nursing diagnosis was formulated for each of the problems and in order to solve these problems objectives were set, nursing orders were set, orders were implemented and all the goals were fully met. The following diagnostic investigations were requested to be done;

5. Blood film for malaria parasite.
6. Blood for Full Blood Count

7. Chest x-ray
8. Pulse oximetry assessment

Patient was managed on the following prescribed medications:

- Intravenous 0.9% sodium chloride in 5% dextrose, 1.5L over 24 hours.
- Tab prednisolone 30mg daily for 7 days.
- Salbutamol inhaler to be used when necessary.
- Sere tide inhaler, 2 puffs twice daily for 7 days.
- Tab salbutamol 5mg, 8 hours interval for 7days.
- Syrup viscof D 15mls 8 hours interval for 5 days.

On 12th November, 2021, patient was discharged during ward rounds. Her relatives were directed to go to the billing office to assess their bill. I accompanied client's son to go and pay the assessed bill. Client was encouraged to continue taking her drugs and was educated on the side effects of the drug and the need to report any illness. She was informed of her review date which was on 16th November, 2021. The need to take in medication was emphasized and review date was stressed. Three home visits were embarked on.

6.2 Conclusion.

In conclusion, I admit that the benefits of writing the patient / family care study as a student nurse cannot be over emphasized. Apart from giving the student nurse the chance to render a comprehensive nursing care to the patient by transferring the theoretical knowledge into practice, it also equips the student with the requisite skills in writing in literature research. More importantly, it broadens the horizon of knowledge of the student nurse of the specific condition on which he/she is writing, as it always calls on him/her to conduct an in-depth research into the

condition with regards to its causes, pathophysiology, clinical manifestations, medical treatment and nursing management.

Conducting the care study is both educative and challenging. Emphasis must be made that the holistic approach of nursing a patient using the nursing process is very effective in aiding speedy recovery and must be made mandatory in all health institutions.

APPENDIX

Vital signs of Madam D.J

DATE	TIME	TEMPERATURE (^{o}C)	RESPIRATION (CPM)	PULSE (BPM)	OXYGEN SATURATION (%)	BLOOD PRESSURE(MMHG)

9/11/2021	3PM	36.0	32	112	89	140/79
	6pm	36.4	24	100	93	125/81
	10PM	36.1	24	92	95	129/75
10/11/2021	6AM	36.5	24	118	96	139/92
	12PM	36.1	21	112	96	110/78
	2PM	36.4	21	94	97	132/88
	6PM	35.8	20	96	96	138/86
	10PM	36.3	22	100	95	128/85

11/11/2021	6AM	36.1	20	80	96	104/82
	12PM	36.0	21	75	96	122/90
	2PM	36.6	20	66	96	121/91
	6PM	35.9	20	76	97	108/68
	10PM	36.0	22	75	96	128/86
12/11/201	6AM	36.2	22	75	97	122/90

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