HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE

BEREKUM

A PATIENT/FAMILY CARE STUDY

ON BRONCHOPNEUMONIA

ADINKRA GODWIN

4120190008

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

AUGUST, 2022

PREFACE

Nursing in the past four decades have brought emphasis on nursing research and the use of scientific data at the bedside. Nursing care has broadened from care of the sick to care of the people both in sickness and health and also extend to the patient's family and community at large in all aspects regardless of the background.

The patient and family care study is carried out by every final year student nurse as a partial fulfillment towards the award of license to practice as a Registered General Nursing. The patient and family care study entails rendering holistic and therapeutic nursing care to a patient and the family. It involves the interaction between the patient including his/her family and health team within a specified time frame until patient is discharged, as well as home visits to ensure care continuity until the care is finally terminated. The purpose of the study is to help the student nurse put to practice the theoretical knowledge acquired during training. The study also gives the student nurse a detailed understanding of the condition and the opportunity to render holistic care to the patient and the family based on the nursing process. To ensure confidentiality, initials of patient were used in the study.

ACKNOWLEDGEMENT

My first and ultimate appreciation goes to the Almighty God for His wisdom, favor, strength and above all the right of life.

My sincere gratitude also goes to Miss J.A.D and her family for their co- operation offered throughout the process. I pray the good Lord grants them life and peace. Special thanks go to my supervisors, Mr. Eric Obeng and Mr. Kwame Tuffour of Holy Family Nursing and Midwifery Training College, Berekum. Without their support, my work would never have been completed. To the tutorial and non – tutorial staff of the college, I say thank you for your support and knowledge impacted on my life.

To the entire Staff at the Pediatric ward of Bono Regional Hospital, I thank you all for your guidance and advice in making this script a successful one.

I also wish to express with love and profound appreciation to my mother and father, Madam Elizabeth Anima and OP. Robert Dartey for their encouragement, support in prayers and finances. I also wish to thank my dear sister Madam Yaa Vida for her support through finances.

I also thank all my friends especially Mr. Seth Asiedu, Mr. Asenso Wahab for their prayers as well as their moral support towards my education.

Again, my thanks go to the authors from whose books that information was picked for this script.

Lastly acknowledge all RGN twenty-two students for their prayers, support and encouragement.

May God richly bless you all.

INTRODUCTION

The patient and family care study is one aspect of nursing which deals with the comprehensive nursing care of a patient and family from the day of admission to the termination of care. The study was written on J.A.D, a 2 month old child who was admitted at the pediatric ward of Bono Regional Hospital on 7th December, 2021 for intensive care management.

The interaction started on 07/12/2021 that was the first day of admission. During the admission process, I expressed my interest to use J.A.D as my patient and family - centered care study, and the patient and her mother willingly agreed. I explained the process and they accepted to co-operate with me.

Six nursing diagnosis were formulated with their appropriate nursing interventions carried out. Patient was managed **on I.V Benzylpenicillin 0.5mu, Suspension Amoxiclav 5ml bd ×7, Saline nasal drop 2 tds ×48hours, I.V Gentamycin 33mg daily ×24 hours, Suppository Paracetamol 92mg tds ×24hours.** Patient recovered and was discharged (11/12/2021). Three home visits were carried out and she was handed over to her mother, who continued the care of the patient.

This report has been divided into six chapters following the steps of the nursing process;

Chapter one deals with assessment of patient and family.

Chapter two however is the analysis of data.

Chapter three also deals with planning of care for patient and family.

Chapter four involves the implementation of nursing care rendered to patient and family.

Chapter five deals with the evaluation of the care rendered to patient and family followed by

Chapter six which involves the summary and conclusion of the care rendered to patient and family.

TABLE OF CONTENTS

CHAPTER ONE

ASSESSMENT OF PATIENT AND FAMILY

1.0 Introduction

The nursing assessment includes gathering information concerning the patient's individual physiological, psychological, sociological and spiritual needs (Nurse Journal, 2017). It is the first step in the successful evaluation of a patient (Toney-Butler, 2021). It is performed continually throughout the nursing process to verify patient's problems, validate nursing diagnosis, plan an effective nursing care towards recovery, evaluate nursing interventions, and determine whether patient outcomes and goals have been met. In this study, assessment was done through observation, physical examination, interviewing of patient relatives and laboratory investigations to help in analysis and diagnosis of patient's condition. All information was gathered from the patient, relatives as well as the patient's health record book. This chapter focuses on patient's particulars, family medical history, family socioeconomic history, patient's developmental history, patient's lifestyle and hobbies, past and present medical history, admission of patient, patient's concept of illness, literature review and validation of data.

1.1 Patient's Particulars

Patient's particulars include patient's name, age, weight, height, patient's parent's name and others which are written down or kept as a record (Collins English Dictionary (2018). The patient for this study is J.A.D, a four months old baby born on the 14th August, 2021 at the Regional Hospital, Sunyani and stays at New Dormaa, Sunyani in the Bono Region with the house address Plot B69. She is the daughter of Mr. A.N. and Madam A.C. patient has one other sibling. She is dark in complexion, with a height of 0.45 meters and weighed 5kg on admission. J.A.D and parents are Christians and worship with the New Apostolic church. She has no

physical impairment. Her mother is her next of kin. Patient's hospital folder number is AAD6866.

1.2 Family Medical History

Medical history includes a more in-depth inquiry into the patient's medical issues which includes all diseases and illnesses currently being treated, and those which have had any residual effects on the patient's health (Jonathan R. Nichol, 2021). J.A.D's mother affirmed that, there are no hereditary or chronic disease such as diabetics, mental illness, hypertension and epilepsy in the family. Grandparents and other close relatives are alive and in good health. Their source of medical treatment is the orthodox and traditional medicine. There are no known allergies in the family. Child and other family members are registered on the National Health Insurance Scheme (NHIS).

1.3 Family's Socio-Economic History

Socio economic history is the social standing or class of an individual or group. It is often measured as a combination of education, income and occupation of the individual (Toney-Butler, 2021). Madam A.C. said their family is well known at their vicinity for their generosity and welcoming attitude towards their neighbours. There is a cordial relationship between members of their nuclear family as well as the extended family. The family members are Christians. J.A.D's mother is teacher and the father is a businessman. The family depends on income generated from mother's monthly salaries and the father's businesses to meet their daily expenses. Other family members support them when the need arises. As a child, J.A.D. solely depends on parents for her financial support. There are no known taboos in the family but they cherish good moral values. Considering their source of income, the family belongs to the middle socio-economic class.

1.4 Patient Developmental History

Growth refers to the progressive increase of living things, especially the process by which the body reaches its point of complete physical development (Weller, 2014). Development refers to the biological, psychological and emotional changes that occur in human beings between birth and the end of adolescent as the individual progresses from dependency to increasing autonomy (Weller, 2014).

According to Madam A.C, she went through a nine-month gestational period without any pregnancy related condition. Miss J.A.D was born through spontaneous vaginal delivery at the Sunyani Regional Hospital. Congenital abnormalities were absent at birth. J.A.D has been immunized with her third dose of polio vaccine, Dpt/Heb/Hip 3, pneumococcal 3 vaccines and due received her BCG vaccine at birth. This was confirmed by her Patient's Health record Book. Madam A.C. revealed that, she breastfeeds J.A.D exclusively on demand and intends to continue with this practice for a period of six months. J.A.D. can neither walk, sit, nor crawl, but can only suckle her mother's breast when being breastfed.

Erik Erikson's theory of psychosocial development describes the human life cycle as a series of eight ego developmental stages from birth to death. These theories are;

1. Trust versus mistrust (birth -18months)
2. Autonomy versus shame and doubt (18months -3years)
3. Initiative versus guilt (3-6years)
4. Industry versus inferiority (6-12years)
5. Identity versus role confusion (12-20years)
6. Intimacy versus isolation (20-35years)
7. Generatity versus stagnation (35-65years)

8. Integrity versus despair (65 – death)

Patient falls within the first developmental stage (trust versus mistrust); where there is conflict between trust and mistrust. Children at this stage begin to develop a sense of trust in their parents and everyone around them through interactions. They also get to know people who are ready to provide their needs and satisfaction at any time. At this stage, children believe in their parents and those around them. They gain better understanding and make differences in motherly and fatherly love. However, failing to fulfill their needs make them lose trust in the individual and humans in general. In view of this, I'm convinced that, patient has achieved a sense of trust aspect of this theory as her parents (immediate world) are adequately performing all her basic needs.

1.5 Patient's Lifestyle/Hobbies

J.A.D usually wakes up late in bed around 8:00am. Her Mother does her oral care once and bathes her twice daily. She empties her bowel as many times as she feel the urge. She is currently on breast milk as her mother is practicing exclusive breastfeeding. She feeds on demand. She usually goes to bed around 8:00pm but she enjoys some sleep during the day. Her siblings play with her at home. On Sundays, her parents take her to church. She likes playing with toys.

1.6 Patient's Past Medical History

Madam A.C revealed that, this is the first time J.A.D. has been hospitalized ever since she was born and has never undergone any surgical operation. Also, she has not seen any manifestations of the childhood illness like whooping cough, diphtheria, etc. from birth to date. She affirmed that, patient sometimes experiences fever which she usually manages with tepid sponging. J.A.D has not experienced any food allergy since she currently depends solely on breast milk. She has no physical deformities or congenital abnormalities.

1.7 Patient's Present Medical History

As narrated by Miss A.C, patient was apparently well until 6th December, 2021 when she noticed a slight increase in body temperature, mild cough and poor breastfeeding. She tepid sponged patient and curdle her to feed. Symptom persisted and aggravated the following day. In the late hours of 7th December, 2021, she took child to the Sunyani regional hospital for medical attention. On examination, patient had fever, she was coughing and had nasal congestion. Upon investigations and assessments, she was diagnosed as having bronchial pneumonia and was admitted to the paediatric ward through Emergency Unit for continuity of care.

1.8 Admission of Patient

Patient was admitted to the Pdiatric Ward of Regional Hospital, Sunyani on 7th December, 2021 at 8:30am carried by mother in a conscious state through the Emergency department. Patient's mother complained of fever, poor feeding, nasal congestion and mild cough for the past two days. On examination child was febrile, weak and coughing hence she was diagnosed of bronchial pneumonia. On arrival, mother was welcomed to the nurse's station. Necessary documents including patient's folder were taken from mother and a quick confirmation was made as means of validation. Patient was admitted into a cot and mother reassured that necessary measures will be implemented with their cooperation to restore health. Her vital signs were checked and recorded as follows;

Temperature -38.2^{o}C

Pulse - 155 beats per minute

Respiration - 55 cycles per minute

Oxygen saturation - 97%

Weight - 5kg

Height - 0.45cm

The following treatment plan was ordered for child after review by the medical officer.

IV Benzylpenicillin 0.5mu qid x 72hours

Suspension Amoxiclav 5ml bd x7

Saline nasal drop 2drops tds x 48hours

IV Gentamycin 33mg daily x 24 hours

Suppository paracetamol 125mg tid x 3

Drugs were obtained from the pharmacy and IV Gentamycin 33mg and suppository paracetamol 125mg were administered. Child was tepid sponged to reduce her body temperature. Laboratory investigations were ordered and carried out on patient at the Emergency Unit; Full Blood Count, blood film for Malaria Parasite (MP's).

I introduced myself and staff present to patient's mother. She was oriented to the ward and its annexes such as the toilet and the bath room. Mother was as well, introduced to other patients on the ward including those with same condition and recovering. Ward policies regarding visiting periods, payment of bills and the time vital signs will be checked were explained to the mother. Patient's particulars such as name, sex, age, and residential address were recorded in the admission and discharge book as well as on the daily ward state.

When J.A.D's condition was stable and responding to treatment, I reintroduced myself to mother as final year student nurse of Holy Family Nursing and Midwifery Training College, Berekum, with the desire to use J.A.D and family for a care study. She was informed that the study is a requirement by the Nursing and Midwifery Council of Ghana in partial fulfillment towards the award of a license to practice as a Registered General Nurse. I explained to them, the concept of patient/family care study and assured her of privacy and confidentiality. It was added

that, a report will be written after the entire event. She responded in affirmative after seeking the consent of her husband on phone. She promised to offer me the necessary information and assistance. I congratulated her on such a decision.

J.A.D was used for my study because I wanted to find out the most influencing cause of pneumonia in early stage of life. Discharge planning was initiated with the mother on this day, thus will continue the care at home once child is well. This include how child will take her drugs at home, dietary modifications if necessary, review dates and need to seek for early health care when sick.

1.9 Patients Concept of Illness

J.A.D mother did not attribute the condition to spiritual forces; however she was willing to know what actually caused the illness of her child. Although she cannot recall what contributed to patient's ill health but she attributed it to a prolonged sleeping under a cold environment. She believed that with the treatment at the hospital and the assurance given to her, her child's condition will improve as soon as possible. Patient's mother believed that with the help of medication and intensive nursing care, her daughter will be fine.

1.10 Literature Review on Bronchopneumonia

Anatomy and Physiology of the Lungs

There are two lungs, one lying on each side of the midline of the thoracic cavity. They are cone-shaped and are described as having an apex, a base, a costal surface and medial surface. The apex is rounded and rises into the root of the neck. The base is concave and semilunar in shape and is closely associated with the thoracic surface of the diaphragm. The costal surface is convex and is closely associated with the costal cartilages, the ribs and intercostal muscles. The medial surface is concave and has roughly triangular-shaped area called the hilum**,** at the level of the 5^{th}, 6^{th} and 7^{th}

thoracic vertebrae. Structures which form the root of the lung enter and leave at the hilum (Hinkle & Cheever, 2016).

The right lung is divided into three distinct lobes: superior, middle and inferior. The left lung is smaller as the heart is situated left of the midline. It is divided into only two lobes: superior and inferior. The lungs function by introducing oxygen by a process called diffusion into blood and also excreting the waste product of metabolism (carbon dioxide) (Cheever, 2016)

Definition of Pneumonia

Hinkle & Cheever, (2016), defined Pneumonia as an inflammation of the lung parenchyma caused by various microorganisms, including bacteria, mycobacteria, fungi and viruses. As a result of the infection, the alveolus becomes filled with serous fluid and inflammation of the cells occurs, the area of the lung involved is said to have undergone consolidation.

Incidence of Pneumonia

Pneumonia is present among immune compromised persons such us those with acquired immune deficiency syndrome (AIDS). It is common among alcoholics and malnourished children. It is also common in people living in an overcrowded area. (Hinkle & Cheever, 2016).

Classification of Pneumonia

As opined by Hinkle and Cheever (2016) and Levis, Emilio T, Clement, Veiga Pinto and Scheitti (2014), pneumonia can be classified according to

a. Location.

1. Bronchopneumonia

Infections spread from the bronchi to the bronchioles and alveoli. This causes inflammation in the alveoli.

2. Lobar pneumonia

This is infection of one or more lobes, usually by Streptococcus pneumonia, leading to production of watery inflammatory exudate in the alveoli. This accumulates and fills the lobule which then overflows into and infects adjacent lobules. It is of sudden onset and pleuritic pain accompanies inflammation of the visceral pleura. This form of pneumonia is most common in previously healthy young adults.

b. According to the environmental setting

1. Community-Acquired Pneumonia

Community-acquired pneumonia (CAP) is an acute infection of the lung occurring in patients who have not been hospitalized or resided in a long term care facility within 14 days of the onset of symptoms. The decision to treat the patient at home or admit him or her to the hospital is based on several factors such as the patient's age, vital signs, mental status, and presence of co-morbid conditions. The causative agents for Community Acquired Pneumonia that requires hospitalization are most frequently S. pneumoniae, H. influenzae, Legionella, Pseudomonas aeruginosa, and other gram-negative rods. The specific etiologic agent is identified in about 50% of cases. It is estimated that more cases of Community Acquired Pneumonia occur in adults 65 years of age and older.

2. Medical Care–Associated Pneumonia

This encompasses three forms of pneumonia: hospital-associated pneumonia, ventilator-associated pneumonia and health care–associated pneumonia. Hospital-associated pneumonia is pneumonia that occurs 48 hours or longer after hospital admission and was not incubating at the time of hospitalization. Ventilator-associated pneumonia refers to pneumonia that occurs more than 48 hours after endotracheal intubation. Health care associated pneumonia is a new-onset pneumonia in a patient who was either hospitalized in an acute care hospital for 2 days or longer within 90 days of the infection; resided in a long-term care facility; received IV antibiotic therapy, chemotherapy, or wound care within the past 30 days of the current infection; or attended a hospital or hemodialysis clinic.

c. According to Aetiology;

i. Typical pneumonia

ii. Atypical pneumonia

iii. Aspiration pneumonia

iv. Hypostatic pneumonia

Other causes of pneumonia include

Aspiration Pneumonia: This pneumonia occurring as either community acquired or hospital acquired results from the abnormal entry of material from the mouth or stomach into the trachea and lungs. Conditions that increase the risk of aspiration include decreased level of consciousness (e.g., seizure, anesthesia, head injury, stroke, alcohol intake), difficulty swallowing, and nasogastric intubation with or without tube feeding. With loss of consciousness, the gag and cough reflexes are depressed, and aspiration is more likely to occur. Other high-risk groups are those who are seriously ill, have poor dentition, or are receiving acid reducing medications. The aspirated material (food, water, vomitus, or oropharyngeal secretions) triggers an inflammatory

response. The most common form of aspiration pneumonia is a primary bacterial infection. Typically, more than one organism is identified on sputum culture, including both aerobes and anaerobes, since they comprise the flora of the oropharynx. Until the cultures are completed, the choice of antibiotic therapy is based on an assessment of the severity of illness, where the infection was acquired (community versus medical care), and the probable causative organism. In contrast, aspiration of acidic gastric contents causes chemical (noninfectious) pneumonitis, which may not require antibiotic therapy. However, secondary bacterial infection can occur 48 to 72 hours later.

Opportunistic Pneumonia: Individuals at risk for opportunistic pneumonia include those with altered immune responses. This can include people with severe protein-calorie malnutrition or immunodeficiencies (e.g., human immunodeficiency virus [HIV] infection), and those receiving radiation therapy, chemotherapy, and any immunosuppressive therapy, including long-term corticosteroid therapy. In addition to the risk of bacterial and viral pneumonia, the immunocompromised person may develop an infection from microorganisms that do not normally cause disease, such as Pneumocystis jiroveci and cytomegalovirus. The onset is slow and subtle with symptoms of fever, tachypnea, tachycardia, dyspnea, nonproductive cough, and hypoxemia.

Pathophysiology

As described Hinkle, Janice, Cheever and Kerry (2014), normally, the upper airway prevents potentially infectious particles from reaching the sterile lower respiratory tract. Pneumonia arises from normal flora present in patients whose resistance has been altered or from aspiration of flora present in the oropharynx; patients often have an acute or chronic underlying disease that impairs host defenses. Pneumonia may also result from bloodborne organisms that enter the pulmonary circulation and are trapped in the pulmonary capillary bed. Pneumonia affects both ventilation and diffusion. An inflammatory reaction can occur in the alveoli, producing an

exudate that interferes with the diffusion of oxygen and carbon dioxide. White blood cells, mostly neutrophils, also migrate into the alveoli and fill the normally air-filled spaces. Areas of the lung are not adequately ventilated because of secretions and mucosal edema that cause partial occlusion of the bronchi or alveoli, with a resultant decrease in alveolar oxygen tension. Bronchospasm may also occur in patients with reactive airway disease. Because of hypoventilation, a ventilation–perfusion mismatch occurs in the affected area of the lung. Venous blood entering the pulmonary circulation passes through the underventilated area and travels to the left side of the heart poorly oxygenated. The mixing of oxygenated and unoxygenated or poorly oxygenated blood eventually results in arterial hypoxemia. If a substantial portion of one or more lobes is involved, the disease is referred to as lobar pneumonia. The term bronchopneumonia is used to describe pneumonia that is distributed in a patchy fashion, having originated in one or more localized areas within the bronchi and extending to the adjacent surrounding lung parenchyma. Bronchopneumonia is more common than lobar pneumonia.

Risk Factors of Pneumonia

Hinkle and Cheever (2016), outlines the following as the risk factors of pneumonia

1. Cancer of the respiratory system
2. Cigarette smoking
3. Chronic obstructive pulmonary disease
4. Immunosuppressed patients and those with a low neutrophil count
5. Prolonged immobility and shallow breathing pattern
6. Depressed cough reflex
7. Aspiration of foreign material into the lungs during a period of unconsciousness (head injury, anesthesia, depressed level of consciousness)

8. Transmission of organisms from health care providers

Clinical Manifestations

The following signs and symptoms are exhibited by patients with pneumonia, according to Hinkle and Cheever (2016).

1. Sudden onset of chills,
2. Rapidly rising fever (38.5 to 40.5C)
3. Pleuritic chest pain
4. Marked tachypnea
5. Shortness of breath
6. Pulse is rapid and bounding
7. Nasal congestion and sore throat)
8. Headache
9. Central cyanosis
10. Orthopnea
11. Poor appetite
12. Diaphoresis and tires easily.
13. Sputum is often purulent
14. Anorexia
15. Fatigue
16. Myalgias
17. Rhonchi and crackles on auscultation

Diagnosis of Pneumonia

Levis et al (2014) cited the following as diagnostic investigations conducted to confirm pneumonia

1. History and physical examination
2. Chest x-ray provides a typical pattern characteristic of the infecting organism
3. A thoracentesis and/or bronchoscopy with washings may be used to obtain fluid samples
4. Sputum specimen for culture and Gram stain
5. Blood culture
6. Arterial blood gases (ABGs) may be obtained to assess for hypoxemia
7. Hematologic investigations to determine increased WBC's

Medical Management

As specified by Cheever (2016), the treatment of pneumonia includes administration of the appropriate broad-spectrum antibiotic and other supportive measures if necessary, as determined by the results of a Gram stain. The guideline for therapy follows:

1. Antibiotic therapy

   a. a macrolide antibiotic: azithromycin, clarithromycin or erythromycin
   b. fluoroquinolone: ciprofloxacin, gemifloxacin or levofloxacin
   c. beta-lactam agent: cefpodoxime or cefuroxime

2. Hydration is a necessary part of therapy, because fever and tachypnea may result in insensible fluid losses.

3. Antipyretics may be used to treat headache and fever

4. Antitussive medications may be used for the associated cough.

6. Antihistamines may provide benefit with reduced sneezing and rhinorrhea.

7. Bed rest is prescribed until the infection shows signs of clearing.

8. If hypoxemia develops, oxygen is administered.

Nursing Management

Reassurance and psychological care

Patients with pneumonia mostly present with fever, headache and chills therefore, patient and family may be anxious. Psychological support to patient is necessary to assure that requisite care will be given to allay fear of the unknown. Patient is also reassured by educating about the disease condition and assuring of competent nursing care in the management of the condition. All procedures to be performed are explained to the patient/ family to elicit adequate co-operation.

Improving airway patency

Patients with pneumonia usually suffer nasal congestion. Chest physiotherapy and postural drainage can be embark to help in the mucous drainage. Suction mucous from the tract if patient is too weak to carry out deep coughing and postural drainage exercises. Oxygen can be administered through a face mask or nasal cannula to improve ventilation.

Promoting rest and conserving energy

Rest and sleep should be ensured in order to conserve energy, promote relaxation and to aid in recovery process. Nurse patient in a comfortable and appropriate bed in a possible free noise

environment. The patient should assume a comfortable position to promote rest and breathing eg, semi-fowler's position, and should change positions frequently (if necessary) to enhance secretion clearance and pulmonary ventilation and perfusion. Bed rails should be raised and padded to protect patient from fall.

Observations

Vital signs such as pulse, respiration and temperature should be monitored to determine whether patient's condition is deteriorating or improving. Desired and side effects of drugs should be monitored. Level of consciousness as well as intake and output to determine the level of hydration in patient. Observe vomitus for blood, colour and record the amount if present. Skin color should be continuously assessed for jaundice, pallor and oedema.

Personal hygiene

Patient's oral hygiene should be maintained to stimulate appetite and to prevent conditions such as gingivitis, angular stomatitis, dental caries and glossitis. The skin and pressure areas should be treated regularly to prevent decubitus ulcer. Patient should be well groomed and be in clean bed free from creases and crumps.

Medicine administration

Ensure that the right drug is given in the right dose and at the right time. Observe for the side effect of the administered drugs and educate client to report unusual effects of the drugs.

Health education

Educate the patient/ family on the condition, causes, management modalities and preventive methods. The importance of completing the course of the antibiotic therapy should be

stressed. Educate family to report any sudden surge of temperature, profuse vomiting or diarrhoea and respiratory abnormalities on time to seek for early medical attention. Educate family on the need to avoid sleeping directly under fans but rather should open windows for ventilation.

Complications

According to Levis et al, (2014) the following complication may occur if pneumonia is not treated or poorly managed

1. Pleurisy
2. Pleural effusion
3. Atelectasis (collapsed, airless alveoli)
4. Systemic bacteremia
5. Lung abscess
6. Empyema
7. Pericarditis
8. Acute respiratory failure
9. Pneumothorax

Prevention of Pneumonia

A pneumococcal vaccine provides specific prevention against pneumococcal pneumonia and other infections caused by S. pneumonia. The Centers for Disease Control and Prevention (CDC)

recommends one-time revaccination after 5 years for people in high-risk categories. The following modalities also promote the prevention of pneumonia.

1. Staff education and involvement in infection prevention
2. Infection and microbiologic surveillance
3. Prevention of transmission of microorganisms (strict adhesion to infection prevention protocol)
4. Modifying host risk for infection (Zimlich, 2021)

1.11 Validation of Data

In order to be certain about the information provided by J.A.D's mother, it was continuously assessed by asking same questions in different ways and at all time, to which same answers were provided. The visit to patient's home and the interaction I had with other family members confirmed the information given by the mother. Again, the information gathered from the doctor's notes, nurse's records and investigations carried out compared with literature review of the condition strongly confirms the validity of the information gathered. Therefore, the collected information was valid.

CHAPTER TWO

ANALYSIS OF DATA

2.0 Introduction

This chapter principally deals with analysis of data collected during the assessment phase of the study. In data analysis, critical and logical study with arrangement is done about an object under study (Johnson, 2021). Data collected during the assessment phase is compared

with standards in literature. The chapter also presents patients/family strength, patients/family health problems and formulation of nursing diagnosis.

2.1 Comparison of Data with Standards

Information obtained from J.A.D's parents is compared to standards in terms of diagnostic investigations/test, causes, clinical manifestations, treatment and complications stated in literature.

2.1.1 Diagnostic Investigations/ Test

The diagnostic investigations below were carried out on J.A.D to aid in the diagnosis and treatment during his period of hospitalization.

1. Physical examination and history
2. Blood for full blood count (FBC)
3. Blood film for Malaria Parasite (MP's)

Table 1: Comparison of Diagnostic Text in Literature to what was done on patient

Diagnostic Text In Literature	**Diagnostic Text Carried On Patient**
History and physical examination	History and physical examination were carried out
Chest x-ray	Chest x-ray was not carried out

Thoracentesis and/or bronchoscopy	Thoracentesis and/or bronchoscopy were not carried out
Sputum specimen for culture and Gram stain	Sputum specimen for culture and Gram stain were not carried out
Blood culture	Blood culture was not carried out
Arterial blood gases	Arterial blood gases was not carried out
Hematologic investigations to determine increased WBC's	Hematologic investigations was carried out

Tests ordered on J.A.D were found in the literature review except Blood film for Malaria Parasite (MP's). Malaria test was carried out for my patient because she presented some manifestations like weakness, poor feeding, nausea and fever which are some of the clinical features of malaria.

Some of the diagnostic investigations in the literature review were not carried out because the physical examination and other tests conducted were able to confirm her condition.

Table 2: Results of diagnostic investigation/test conducted on Miss J.A.D compared with standards

Date	Specimen	Investigations	Results	Normal value	Interpretation	Remarks
07/12/21	Blood	Blood film for MPs	Negative	Malaria parasite should not be present in blood	The malaria parasite was absent	No treatment was ordered
07/12/21	Blood	Hemoglobin level	11.6g/dL	Males: 12 – 18g/dl Females: 11–16g/dl Children:14-16g/dl	Patient hemoglobin was below the normal range	No treatment was ordered because hb was slightly below average.
		White blood cells count	8.7 x 10^3/uL	(3.5 – 9.5) x 10^3/uL	Normal White blood cells count	IV Gentamycin was ordered
		Hematocrit count	41%	(40-50)%	Hematocrit is in normal range.	No treatment was ordered

2.1.2 The causes of patient's Illness

With reference to the causes of pneumonia as stated in the literature review and home visits conducted, J.A.D's condition can be attributed to exposure to air pollutants, reduced immunity (undeveloped immunity) and continue exposure to cold. A.C's home environment is dusty and she also exposes the child to much cold.

2.1.3. Clinical Manifestation/ Signs and Symptoms

The table below shows the clinical presentation exhibited by patient as compared to those stated in literature review.

Table 3: Clinical manifestations exhibited by patient compared to literature review.

Clinical features outlined in literature	**Clinical features exhibited by patient**
Sudden onset of chills,	J.A.D. did not experience chills
Rapidly rising fever (38.5 to 40.5C)	J.A.D. had fever
Pleuritic chest pain	J.A.D experienced mild chest pain
Marked tachypnea	J.A.D had tachypnea
Shortness of breath	J.A.D experienced shortness of breath
Pulse is rapid and bounding	J.A.D's pulse was rapid and bounding

Table 3 continues: Clinical manifestations exhibited by patient compared to literature review.

Nasal congestion	Nasal congestion was present
Headache	Patient was crying exhibiting pain
Central cyanosis	J.A.D had no central cyanosis
Orthopnea	J.A.D had no orthopnea
Poor appetite	J.A.D had poor appetite
Diaphoresis	J.A.D had diaphoresis
Purulent sputum	J.A.D did not produce purulent sputum
Fatigue	J.A.D had fatigue
Rhonchi and crackles on auscultation	J.A.D had Rhonchi and crackles on auscultation

From this, patient presented some clinical manifestations as outlined in the literature review, however not all was manifested. This was as a result of early report to the hospital for treatment.

2.1.3. Medical Treatment giving to Patient

Based on the investigation and the presenting symptoms of patient, the following treatment modality was prescribed during the time of her hospitalization

1. **IV Benzylpenicillin 0.5mu qid x 72hours**

2. **Suspension Amoxiclav 5ml bd x7**
3. **Saline nasal drop 2drops tds x 48hours**
4. **IV Gentamycin 33mg daily x 24 hours**
5. **Suppository paracetamol 125mg tid x 3**
6. **IV paracetamol 92mg tds x24 hours**

Table 4: Comparison of Treatment outlined in Literature Review and what Patient received

Treatment outlined in literature review	**Treatment giving to patient**
Antibiotic therapy	IV Gentamycin 33mg daily x 24 hours was prescribed IV x-pen 0.5mu qid x 72hours was prescribed Suspension Amoxiclav 5ml bd x7 was prescribed
Antipyretics	Suppository paracetamol 125mg bd x 24 hours was prescribed IV paracetamol 92mg tid x 24 hours was prescribed
Antitussive medications	Syrup cough mixture 2.5mls tid x 5 days was prescribed
Antihistamines	Antihistamines was not prescribed

Oxygen therapy	Oxygen therapy was not prescribed
IV Fluids	N/S 500mls and DNS 500mls all for 24 hours were prescribed

Table 5: Pharmacology of Drugs for Child

Date	**Drug**	**Dosage/ Route of administration (Literature)**	**Dosage/ Route of administration (Given to patient)**	**Classification**	**Desired effect**	**Actual Action Observed**	**Side Effect/ remarks**
07/12/21	Gentamycin	**Children**: 2.5mg per body weight, 8 hourly Route: IV/IM	33mg daily Route: IV	Aminoglycoside	Inhibit the synthesis of proteins in bacteria	The white blood cell level normalized demonstrating no sign of infection	Headache, rash, nausea oedema, visual acuity. None was observed
07/12/21	Paracetamol	**Adults:** 1g **Children:**125-250mg Route: Oral/IV/rectal	125mg tid x 3 Route : rectal	Anti-pyretic/ Analgesic	Act on the hypothalamus to produce antipyresis	Body temperature was reduced	Dizziness, light headedness. None was observed

Table 6: Pharmacology of Drugs for Child continued

Date	**Drug**	**Dosage/ Route of administration (Literature)**	**Dosage/ Route of administration (Given to patient)**	**Classification**	**Desired effect**	**Actual Action Observed**	**Side Effect/ remarks**
07/12/21	Intravenous DNS and RL	Amount depends on patient's fluid and electrolyte level, age as well as by doctors prescription	1L within 24hr	Isotonic infusion	To correct fluid and electrolyte imbalance DNS is used to treat hypovolemia.	Patient normal body fluids and electrolytes level was maintained.	Good skin turgor, cardiac overload. None was observed

Table 5 continue: Pharmacology of Drugs for Child

Date	**Drug**	**Dosage/ Route of administration (Literature)**	**Dosage/ Route of administration (Given to patient)**	**Classification**	**Desired effect**	**Actual Action Observed**	**Side Effect/ remarks**
08/12/21	Suspension Amoxiclav	**Adults:** (125mg/31.25mg)/ 5ml **Children:** 125mg/5ml Route: Oral/IV/rectal	5ml bd x 7	Antimicrobials and Penicillins	it inhibits or stops the growth of bacteria.	The white blood cell level normalized demonstrating no sign of infection	Headache, rash, nausea oedema, visual acuity. None was observed

09/12/21	Paracetamol	**Adults:** 1g **Children:**125-250mg Route: Oral/IV/rectal	125mg bd x 24 hours Route : Rectal	Anti-pyretic/ Analgesic	Act on the hypothalamus to produce antipyresis	Body temperature was reduced	Dizziness, light headedness. None was observed
10/12/21	Saline nasal drop	**Adults:** 2-3 drops per day **Children:** 2-3 drops per day Route: nasal/nostril	2drops tid for 2 days Route: nasal/nostril	Decongestants	Used to relieve nasal congestion and dryness.	Patient was relived from congestion	Dizziness, light headedness. None was observed

2.1.4 Complications

According to the literature review, patients with pneumonia suffer from empyema, respiratory failure, pleural effusion and lung abscess and other but Miss J.A.D suffered none of them because she reported early to the hospital and was rightfully diagnosed and treated.

2.2 Patient/Family's Strengths

The following strengths were identified on patient and her family;

1. Patient could breathe through the mouth
2. Mother expressed readiness to participate in management of child's fever
3. Patient's mother could verbalize her source of anxiety
4. Patient cough subsided when propped up
5. Patient could take 20mls of breast milk
6. Patient's mother was willing to be educated on the condition

2.3 Patient/ Family Health Problem

From the data collected during assessment, the following health problems were noticed on patient and family;

1. (07/12/21) Patient had nasal congestion
2. (07/12/21) Patient had high body temperature
3. (07/12/21) Patient's mother was anxious
4. (07/12/21) Patient experienced cough
5. (07/12/21) Patient's mother complained of poor feeding
6. (08/12/21) Patient's mother had inadequate knowledge on condition

2.4 Nursing Diagnosis

The following nursing diagnoses were formulated for patient/family during the period of care:

1. (07/12/21) Ineffective breathing pattern related to hyper-production of bronchial secretions secondary to bronchial irritation.
2. (07/12/21) Hyperthermia related to the inflammatory process in the lungs and bronchial structures (Bronchopneumonia).
3. (07/12/21) Anxiety (mother) related to unknown outcome of disease process and its management.
4. (07/12/21) Cough related to the inflammatory in the lungs.
5. (07/12/21) Imbalanced nutrition (less than body requirement) related to inadequate dietary intake secondary to infectious process.
6. (08/12/21) Knowledge deficit (mother) related to technical nature of information on Bronchopneumonia.

CHAPTER THREE

PLANNING FOR PATIENT/ FAMILY CARE

3.0 Introduction

Planning is the third stage of the nursing process and involves development of goals to meet identified goals. The purpose of planning is to identify the nature of approach necessary to be employed in providing holistic care, restoration, maintenance and promotion of health to the patient.

3.1 Objectives/ Outcome Criteria set for Patient/ Family

1. Child's breathing pattern will be restored to normal ranges (30–60cpm) within 48hours as evidenced by;

   a. Nurse recording a respiratory rate between 30 and 60cpm.

   b. Mother verbalizing that, child can breathe without difficulty.

2. Child's body temperature will be restored to normal (36.7 ^{o}C - 37.3 ^{o}C) within 24hours as evidenced by

   a. Nurse recording a temperature within the normal range (36.7 ^{o}C - 37.3 ^{o}C).

   b. Mother verbalizing that, child is no longer warm to touch.

3. Mother will be relieved of anxiety within 24 hours as evidenced by:

   a. Mother verbalizing a relief of anxiety.

   b. Nurse observing mother being relaxed and cooperative in the care.

4. Child will be relieved of cough within 72hours as evidenced by

   a. Nurse observing a reduction in the frequency of cough.

b. Mother reporting the absence of cough in her child

5. Child will regain her normal nutritional pattern within 48 hours as evidenced by:

a. Child maintaining normal body weight

b. Mother reporting that child has regained appetite

6. Mother will gain adequate knowledge on Bronchopneumonia within 48 hours evidenced by:

a. Mother being able to provide correct answers to questions posed to her with regard to the causes, management and prevention of pneumonia

b. Nurse observing that the mother practice knowledge gained on bronchopneumonia.

Table 7: Nursing Care Plan for Miss J.A.D and Mother

Date/ Time	Nursing Diagnosis	Objective/ Outcome Criteria	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation	Sign
07/12/21 8:30am	Ineffective breathing pattern related to hyper-production of bronchial secretions secondary to bronchial irritation	Child's breathing pattern will be restored to normal ranges (30–60cpm) within 48hours as evidenced by; a. Nurse recording a respiratory rate between 30 and 60cpm. b. Mother verbalizing that, child can breathe without difficulty	1. Reassure patient and mother 2. Remove tight clothing around the patient's neck, chest, and waist. 3. Put the patient in a semi- fowler's position to aid breathing. 4. Monitor vital signs, especially respiratory rate and oxygen saturation levels. 5. Ensure adequate ventilation.	1. Mother was reassured that measures will be taken to restore normal breathing pattern. 2. Tight clothing around the patient's neck, chest, and waist were removed to aid in easy breathing. 3. Patient was put in a semi-fowlers position by the nurse to aid breathing. 4. Child's vital signs (temperature, pulse respiratory rate) were monitored paying particular attention to respiration and oxygen saturation. 5. Nearby windows were opened to allow fresh air in.	09/12/21 8:30am	Goal fully met as 1. Patient's respiratory rate recorded 42cpm 2. Mother reported that, child could breathe without difficulty.	A.G

			6. Educate mother on dyspnea and its management.	6. The mother was educated on dyspnea and its management was done. Mother expressed satisfaction with education done.			

Table 8: Nursing Care Plan for Miss J.A.D and Mother continued

Date/ Time	Nursing Diagnosis	Objective/Outcome Criteria	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation	Sign
07/12/21 9:00am	Hyperthermia related to the inflammatory process in the lungs and bronchial structures (Bronchopneumonia)	Child's body temperature will be restored to normal (36.7 ^{o}C - 37.3 ^{o}C) within 24hours as evidenced by a. Nurse recording a temperature within the normal range (36.7 ^{o}C - 37.3 ^{o}C). b. Mother verbalizing that, child is no longer	1.Tepid sponge child 2. Ensure adequate hydration 3. Provide adequate ventilation on the ward 4. Remove extra clothing from the patient 5. Serve prescribed	1. Child was tepid sponged with tepid water and towels. 2. IV Fluids: N/S 500mls, DNS 500mls was administered to keep child hydrated. 3. Nearby windows were opened to ensure adequate ventilation in the room. 4. Extra clothing like pullovers were removed from the patient 5. IV paracetamol 92mg was	08/12/21 9:00am	Goal fully met as a. Patient's temperature was checked and recorded as 36.5 b. Mother verbalized that, child was no longer warm to touch.	A.G

		warm to touch.	anti-pyretics (IV paracetamol) 6. Continuously monitor vital signs.	administered tds x 24hrs. 6. Vitals signs were continuously monitored (temperature, pulse, respiration) as sponging was done to determine the effectiveness of the procedure. Temperature dropped by 0.8^{o}C at 30 minutes of implementing care.			

Table 9: Nursing Care Plan for Miss J.A.D and Mother continued

Date/ Time	Nursing Diagnosis	Objective/Outcome Criteria	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation	Sign
07/12/21 10:00am	Anxiety (mother) related to unknown outcome of disease process and its management	Mother will be relieved of anxiety within 24 hours as evidenced by: a. Mother verbalizing a relief of anxiety. b. Nurse observing mother being relaxed and cooperative in the care.	1. Reassure mother. 2. Assess mother's level of anxiety 3. Allow mother to express all fears and ask questions if any. 4. Introduce mother to other patients on the ward with similar condition.	1. Mother was reassured of competent nursing care. 2.On assessment mother was showing signs of mild anxiety 3. Mother was allowed to verbalize concerns. She asked of the possibility of child's survival. 4. Mother was introduced to Miss E. A who was recovering from right lobar pneumonia in the same cubicle as J.A.D	08/12/21 10:00 am	Goal was fully met as; a. Mother verbalized a relief of anxiety. b. On observation mother was relaxed and cooperative in the care.	A.G

			5. Answers all questions posed by mother tactfully and in simple language. 6. Explain every procedure to be carried out to the mother.	5. All questions posed by mother were answered in the local language in which mother understands. This improved communication between patient and staffs. 6. Every procedure and its rational were explained to the mother.			

Table 10: Nursing Care Plan for Miss J.A.D and Mother continued

Date/ Time	Nursing Diagnosis	Objective/Outcome Criteria	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation	Sign
07/12/21 11:00 am	Cough related to inflammatory process in the lungs.	Child will be relieved of cough within 72hours as evidenced by; a. Nurse observing a reduction in the frequency of cough. b. Mother reporting the absence of cough in her child	1. Reassure mother. 2. Encourage mother to cover child's mouth with tissue when coughing 3. Prop-up patient in bed. 4. Educate mother on proper	1. Mother was reassured on the available treatment measure to reduce the cough. 2. Mother was educated to cover the mouth of child with tissue when coughing to prevent the rate of spreading the infection. 3. Patient was propped-up in bed. 4. The mother was	10/12/21 11:00am	The set objective was fully met as; a. There was a reduction in the frequency of cough on observation b. Mother reported the absence of cough in her child	A.G

			disposal of used tissue 5. Protect patient from exposure to irritants 6. Administer prescribed medication	educated on the proper way of disposing used tissues in order to prevent spread of infection. 5. Patient was nursed in a well-ventilated and tidy room with limited exposure to dust. 6. Prescribed medication (suspension Amoxiclav 5mls tdsx 7and IV Benzylpenicillin 0.5mu qid x 72hours) was served to combat infection, reducing irritation and cough.			

Date/ Time	Nursing Diagnosis	Objective/Outcome Criteria	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation	Sign
07/12/21 12:00pm	Imbalanced nutrition (less than body requirement) related to inadequate dietary intake secondary to infectious process.	Child will regain her normal nutritional pattern within 48 hours as evidenced by: a. Child maintaining normal body weight b. Mother reporting that child has regained appetite	1. Reassure mother 2. Assess child's weight 3.Educate mother on child's nutrition 4. Provide small but frequent feeds to child 5. Promote adequate rest for child after feeding.	1. Mother was reassured of the available measures to help child regain her normal dietary pattern. 2. Child's weight was checked and recorded as 5kg. 3.Mother was educated on essential nutritional measures needed for the development and recovery of the child. 4. Child was breastfed frequently in small quantities as tolerated. 5. Enough rest was ensured for child to conserve energy to improve her ability and desire to ingest food.	09/12/21 12:00pm	Goal was fully met as child maintain normal body weight of 5kg. Mother reported that child has regained appetite.	A.G

			6. Document care rendered to patient in the nurses' notes.	6. Rendered care was documented to ensure continuity of care.			

Table 11: Nursing Care Plan for Miss J.A.D and Mother continued

Date/ Time	Nursing Diagnosis	Objective/Outcome Criteria	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation	Sign
08/12/21 9:10am	Knowledge deficit (mother) related to the technical nature of information on Bronchopneumonia	Mother will gain adequate knowledge on Bronchopneumonia within 48hours as evidenced by: 1. Mother being able to provide correct answers to questions posed to her with regards to the causes and prevention of	1. Provide a suitable environment for teaching and learning. 2. Assess mother's knowledge on bronchopneumonia 3. Educate mother on the causes, clinical	1. A calm environment was created for teaching and learning by providing seats for mother, ensuring privacy and minimizing all forms of destructors like noise. Images on pneumonia prevention were shown to ensure easy memory 2. Mother was asked to share what she knows about pneumonia. Mother mentioned some clinical features of Bronchopneumonia. 3. Mother was educated on the causes, signs and symptoms, management and	10/12/21 09:10am	Goal was fully met as mother was able to provide correct answers to questions posed to her with regard to the causes and prevention	A.G

		pneumonia 2. Nurse observing that the mother practice knowledge gained on bronchopneumonia	features, management and prevention of the disease. 4. Allow mother to ask questions and answer them tactfully. 5. Evaluate mother's understanding by asking questions on pneumonia. 6. Document procedure in the nurses' notes.	prevention of pneumonia. Immediate seeking of medical attention was stresses when symptoms are observed. 4.Mother was encouraged to ask questions which were answered in simple clear language. 5. Mother demonstrated understanding of the condition by answering every questioned asked correctly. 6. Procedure was documented in the nurses' notes for the continuity of care.		of pneumonia and mother was observed practicing knowledge gained on pneumonia	

CHAPTER FOUR

IMPLEMENTATION OF PATIENT/ FAMILY CARE STUDY

4.0 Introduction

This is the fourth stage of the nursing process where all proposed nursing actions are carried out to meet the stated objectives. At this stage, the nurse assumes responsibility for implementation and coordinates the activities of all those involved in implementation, including patient and family and other members of the health care team, so that the schedule of activities facilitates the patient's recovery. According to the specific problems of the person, prioritization of interventions carrying out on patient is very necessary. The immediate, intermediate, and long-term goals are used as a focus for implementing the designated nursing interventions. While implementing care, assessment of patient is done continually to check the effectiveness of the care administered. Revisions are made in the plan of care as the patient's condition, problems and responses change and when reordering of priorities is required. All nursing actions carried out and their effectiveness toward patient recovery is documented for the continuity of care.

4.1 Summary of Actual Nursing Care

The actual nursing care rendered to J.A.D and family commenced on the day of admission, 7th December, 2021 to the last home visit where care was terminated on the management of patient/ family encompassed dependent and independent nursing care carried out while on admission. These include routine nursing actions such as monitoring vital signs, medication administration, taking samples for laboratory investigations and any other nursing activity. The necessary documentations were also carried out

First Day of Admission (7th December, 2021)

Child was admitted to the pediatric ward of Regional Hospital, Sunyani on 7th December, 2021 at 8:30am carried by mother in a conscious state through the Emergency department. Child's mother complained of fever, poor feeding, nasal congestion and mild cough for the past two days. Upon assessment child was febrile, weak and coughing hence she was diagnosed of bronchial pneumonia. Child was admitted into a cot and mother reassured that necessary measures will be implemented with their cooperation to restore health. Her vital signs were checked and recorded as follows;

Temperature - 38.2^{o}C

Pulse - 155 beats per minute

Respiration - 55 cycles per minute

Oxygen saturation - 97%

Weight - 5kg

Height - 0.45cm

J.A.D. was coughing and had catarrh so this made her restless and weak during admission. The following treatment plan was ordered for child after review by the medical officer.

IV Benzyl penicillin 0.5mu qid x 72hours

Suspension Amoxiclav 5ml bd x7

Saline nasal drop 2drops tds x 48hours

IV Gentamycin 33mg daily x 24 hours

Suppository paracetamol 125mg tid x 3

Drugs were obtained from the pharmacy and IV Cefuroxime 210mg, IV Gentamycin 33mg and suppository paracetamol 125mg were administered. Also child was tepid sponged to reduce her

body temperature. Laboratory investigations were ordered and carried out on patient at the Emergency Unit; Full Blood Count, blood for Malaria Parasite (MP's).

Based on the presenting complains;

At 8:30am, nursing diagnosis of ineffective breathing pattern related to hyper-production of bronchial secretions secondary to bronchial irritation was formulated. A nursing objective was set to restore child's respiration rate to normal ranges (30–60cpm) within 48 hours Appropriate nursing interventions carried out on child include; Mother was reassured that measures will be taken to restore normal breathing pattern, Tight clothing around the patient's neck, chest, and waist were removed to aid in easy breathing, Patient was put in a semi-fowlers position by the nurse to aid breathing, Child's vital signs (temperature, pulse respiratory rate) were monitored paying particular attention to respiration and oxygen saturation, Nearby windows were opened to allow fresh air in, The mother was educated on dyspnea and its management was done. Mother expressed satisfaction with education done.

At 9:00am, nursing diagnosis of hyperthermia related to the inflammatory process in the lungs and bronchial structures (Bronchopneumonia) was made for temperature (38.2^{o}C). Nursing objective was made to restore child's body temperature to normal (36.7 - 37.3 degree Celsius) within 24hours. The following nursing actions were implemented within the period set to achieve goals; Child was tepid sponged with tepid water and towels, IV Fluids: N/S 500mls, DNS 500mls was administered to keep child hydrated, Nearby windows were opened to ensure adequate ventilation in the room, Extra clothing like pullovers were removed from the patient, IV paracetamol 92mg was administered tds x 24hrs, Vital signs were continuously monitored (temperature, pulse, respiration) as sponging was done to determine the effectiveness of the procedure. Temperature dropped by 0.8^{o}C at 30 minutes of implementing care.

At 10:00am, child's mother was observed to be anxious and did not know what to expect as various interventions were carried out on child. This was evidenced as mother trying to find out the prognosis of child's condition and why immediate attention has been shifted to child. A nursing diagnosis of Anxiety related unknown outcome of disease process and its management. Nursing objective was set to relief mother of anxiety within the period of 24 hours. The following interventions were carried out: Mother was reassured of competent nursing care, On assessment mother was showing signs of mild anxiety, Mother was allowed to verbalize concerns. She asked of the possibility of child's survival, Mother was introduced to Miss E. A who was recovering from right lobar pneumonia in the same cubicle as J.A.D, All questions posed by mother were answered in the local language in which mother understands. This improved communication between patient and staffs, every procedure and its rational were explained to the mother.

At 11:00am, nursing diagnosis of cough related to inflammatory process in the lungs was made. Nursing objective was formulated to relief child from coughing within 72hours. The following nursing actions were implemented within the period set to achieve goals; Mother was reassured on the available treatment measure to reduce the cough, Mother was educated to cover the mouth of child with tissue when coughing to prevent the rate of spreading the infection, Patient was propped-up in bed, The mother was educated on the proper way of disposing used tissues in order to prevent spread of infection, Patient was nursed in a well-ventilated and tidy room with limited exposure to dust, Prescribed medication (suspension Amoxiclav 5mls tdsx 7and IV Benzylpenicillin 0.5mu qid x 72hours) was served to combat infection, reducing irritation and cough.

At 12: 00pm, nursing diagnosis of imbalanced nutrition (less than body requirement) related to inadequate dietary intake secondary to infectious processes was formulated. An objective was set to help Child regain her normal nutritional pattern within 48 hours. The following nursing intervention were carried out: Mother was reassured of the available measures to help child regain her normal dietary pattern, Child's weight was checked and recorded as 5kg, Mother was educated on essential nutritional measures needed for the development and recovery of the child, Child was breastfed frequently in small quantities as tolerated, Enough rest was ensured for child to conserve energy to improve her ability and desire to ingest food, Rendered care was documented to ensure continuity of care.

At 10:00pm, child's vital signs were recoded per the appendix by the night nurse. She had a sound sleep during the night. She was keen monitored during the hours of the night.

Second day of admission (08/12/2021)

J.A.D woke up at 6:00am during wards routine vital signs and medication period in the morning. Child's mouth was wiped with cotton wool soaked in normal saline. Her vital signs were recorded per the appendix. Her medications; IV Cefuroxime 210mg, IV Gentamycin 33mg and suppository paracetamol 125mg was administered. No drug reaction was observed.

At 7:30am during the routine ward review, prescriber reviewed child and ordered to hold IV cefuroxime and suppository Paracetamol. In replace, IV Rocephen 350mg bd x 48 hours and IV Paracetamol 250mg tid x 24 hours was ordered. Also pediatric cough mixture 2.5mls tds x 5 days was ordered.

At 9:00am the objective that was set to restore child's body temperature was evaluated and goal was fully met as Patient's temperature was checked and recorded as 36.5, Mother verbalized that, child was no longer warm to touch.

At 9:10am nursing diagnosis of knowledge deficit (mother) related to the technical nature of information on Bronchopneumonia was formulated. The following nursing interventions were carried out. A calm environment was created for teaching and learning by providing seats for mother, ensuring privacy and minimizing all forms of destructors like noise. Images on pneumonia prevention were shown to ensure easy memory, Mother was asked to share what she knows about pneumonia, Mother mentioned some clinical features of Bronchopneumonia, Mother was educated on the causes, signs and symptoms, management and prevention of pneumonia. Immediate seeking of medical attention was stresses when symptoms are observed, mother was encouraged to ask questions which were answered in simple clear language, mother demonstrated understanding of the condition by answered every questioned asked correctly. Procedure was documented in the nurses' notes for the continuity of care.

At 10am, child's vital signs were recorded per the appendix. The objective that was set to relieve mother of anxiety was evaluated and goal fully met as mother verbalized a relief of anxiety, on observation mother was relaxed and cooperative in the care.

At 2pm, vital signs were recorded per the appendix. IV Paracetamol 250mg and pediatric cough mixture 2.5mls were administered. Child was responding to treatment.

Per the nurse's continuation note, child's vital signs was checked and recorded per the appendix. IV Rocephen 350mg was administered.

At 10pm, IV Paracetamol 250mg and syrup cough mixture 2.5mls were administered. Child slept few moments after this activity.

Third day of Admission (9th December, 2021)

During the routine ward activities at 6:00am, child was awake from bed. Her vital signs were checked per the appendix. All her vital signs were in good state. IV Paracetamol 250mg and syrup cough mixture 2.5mls and IV Rocephen 350mg were administered. No immediate or late drug reaction was observed. Mother was encouraged to breastfeed her on demand.

Child was responding to the new treatment regimen as no new complain was made by mother. On assessment, there was an improvement in the general health status of child. I arranged with the family for my first home visit to their home.

At 8:30am, the goal that was set to restore child's breathing pattern to normal was fully met as Child's respiratory rate recorded 42cpm and mother reported that, child could breathe without difficulty.

At 12:00pm the object set to help child regain her normal nutritional pattern within 48 hours was evaluated and goal was fully achieved as child maintain normal body weight of 5kg and Mother reported that child has regained appetite.

At 2pm, child's vital signs were checked and recorded per the appendix. Syrup cough mixture 2.5mls was administered to child. She was responding to the treatment regimen.

Fourth day of Admission (10th December, 2021)

Child was waked from bed during the regular ward activities at 6am. During the night period, child had a sound sleep. She was monitored on several occasions for any change in health status but none was observed. Her vital signs were assessed in the morning and all were in their normal ranges. Also, her due medications were administered. Clinically, she is doing fine. It was reported by her mother that, patient was well and had a good night sleep.

On review this day, M.O ordered for the continuation of treatment plan with possible discharge tomorrow. No new complain was made by the mother. All her vital signs were in the normal ranges.

At 9:10am the objective set to help mother gain adequate knowledge on Bronchopneumonia within 48hours was evaluated and goal was fully met as mother was able to provide correct answers to questions posed to her with regard to the causes and prevention of pneumonia and mother was observed practicing knowledge gained on pneumonia

At 10am, child's vital signs were checked and recorded per the appendix. All her due medications were administered and the appropriate documentations was carried out. These activities were carried out by the morning and afternoon staffs respectively.

At 11am the objective that was set to relief child of cough within 72 hours was evaluated and goal was fully met as there was a reduction in the frequency of cough on observation and Mother reported the absence of cough in her child

At 10pm, her vital signs were checked and recorded per the appendix. Syrup cough mixture 2.5mls was administered, IV paracetamol 250mg were administered. Child was put to breastfeed till she felt asleep.

Fifth day of Admission (Day of Discharge, 11th December, 2021)

This day, the child was discharged from the hospital. But various objectives set to promote comfort, relieve sickness and promote health were evaluated before she was reviewed for discharged. Vital signs and due medications were carried out at 6am and was documented as such.

On review this day, M.O discharged patient on the following orders; Syrup paracetamol 2.5mls tds x 5 and review in a week time (19th December, 2021). Mother was informed about the discharge and asked to settle some bill at the accounts department as top up although child was insured. Also she was reminded about the preventive methods about child condition. All due papers were signed correctly and receipts were inspected. The mother was taught how and when drugs will be administered. The need to continue with medications and completing the drugs was emphasized. Review date (19th December, 2021) was mentioned again to child's mother and the importance of honoring it was emphasized. The family was assisted to pack their belongings. Patient bed and linen were disinfected, her name was discharged from the admission and discharged book and was indicated on the ward census. The family bid the ward inmates and staff goodbye. I accompanied them to the hospital entrance to take a transport.

4.2 Preparation of Patient for Discharge/ Rehabilitation

Preparation for discharge commenced from the time of admission to the hospital (7th December, 2021) to the actual date of discharge (11th December, 2021). This was to inform the family, the child's stay in the hospital is temporal so she will be discharged home when her condition improves. Child's mother was educated on causes, signs and symptoms, treatment and preventions of pneumonia were emphasized. Also, the need to maintain good personal/ environmental hygiene and nutrition was done. Review date 19th December, 2021 was stressed for the family to take note and also the need to report to a health facility early when any unusual symptom is observed. Necessary documents were recorded into the admission and discharge book as well as the ward state. All receipts were inspected.

Prior to discharge, they were reassured that I would visit them at home. They were educated on the condition, the causes, signs and symptoms as well as the complications. Patient's mother was

encouraged to adhere to all the preventive measures given to them already. They were also educated on the need to observe the dosage, time and importance of taking the prescribed drugs. I helped them packed their items and accompanied them to take a transport back home, we bid each other goodbye. I decontaminated the bed and removed soiled linens.

4.3 Follow Up/ Home Visits/ Continuity of Care

Home visit was done when patient was on admission and after discharge. It was friendly but a purposeful visit to patient home. Health educations were given and the need for the prevention of complication was reemphasized. It provided a good account on the causes and predisposing factors of child's illness. Patient's house, place where she spent much time on the day was assessed during the visit. Recommendations were made to the family as certain risk factors were assessed to prevent the occurrence of condition.

4.3.1 First Home Visit

The first visit took place on 9th December, 2021 while patient was on admission. This was a planned visit to the house but it was not easy locating the place since it was my first time in that community. The visit was aimed at finding factors that can contribute to patient's current condition and validate the information child's mother provided during interrogation. I met other families living in the same house with my patient's family. The family lives in a family house in Asuokwaa, a small town located in New Dormaa, Sunyani in the Bono region. Their house was built with cement blocks and well roofed with aluminum sheet. The house consist of a separate apartments occupied by different members of the family. Each apartment has its own toilet and bath room. The rooms have good ventilation. They have built a small structure made of wood in

which they use as kitchen. The floor of the house was dusty but neatly swept. I encouraged them to sprinkle water on the sand to reduce much dust production. They get their water source from a tap which supply the whole area. Upon inspecting their room, dust were found settling on the rover blades found in the windows. It was observed that the family was not sleeping under a treated mosquito net. Sleeping under a treated mosquito net was recommended for the family to prevent mosquito contact. The refuse bin is about 2km away from the house. Electricity was their main source of light which they receive supply from the Volta River Authority (VRA). Also, they were encouraged to clean the dust particles settled on the rover blades as early as possible. Frequently sweeping and mopping the room was recommended as this will reduce the amount of dust settled in the room. They accepted to adhere to my recommendations as soon as possible.

4.3.2 Second Home Visit

The second home visit was embarked on 17th December, 2021 few days after patient's discharge. This visit was also planned as I called to inform them about my visit. The purpose of this visit was to ascertain whether the education given during the period of hospitalization and first home visit had been adhered to, inspect child's drugs and also remind them of the review date. I got to the house at 2:30pm as the family had closed from their church activities and resting. They were very happy to see me. They responded positive when I asked about their health and doings. They gave me a seat as they prepared themselves to welcome me. I used this as the opportunity to make a quick observation. I inspected the drugs J.A.D took to the house of which it was almost finished. I congratulated them on the effort taken to improve J.A.D's health. I checked on the rover blades as it was well cleaned. I gave out a long lasting mosquito net to them as the family was not having at the moment. I congratulated them on the positive activities

they embarked concerning the healthy habits. I stayed with them for a while and asked for permission to leave after 4:30pm.

4.3.3 Review Date

Review date was scheduled on 19th December, 2021. The family reported to the OPD of the Regional Hospital, Sunyani at 9am on this day. I observed that child's condition had improved. I accompanied them to the records department for his folder and child's vital signs were taken. I took them to the consulting room for the review. Mother made no new complain to the consultant this day. After physician examination of child, it was confirmed there was an improvement in condition. Syrup multivitamin 5mls tds x 5 days was prescribed to boost her immunity. Drug was obtained from the hospital pharmacy and I bid good bye to the family. I used that as the opportunity to inform mother about my last home visit.

4.3.4 Third Home Visit

This was my last visit to the family which occurred on Wednesday 20th December, 2021. The aim of this visit was to find out how child and family were doing, reinforce the preventive methods taught and eventually terminate the care and hand over patient if necessary. I arrived at Asuokwaa at 11am and proceeded to J.A.D's family house. The whole family was very happy to see me again. I greeted the family which was present and asked how they were doing and they affirmed positive. I asked of J.A.D and she was brought to me. On appearance, child had improved in health. Continuous questioning and interview proved that, the education giving during the admission period was heard in good heart. They mentioned some preventive methods of how to prevent any possible cause of pneumonia and they were applauded on their effort. Drugs taken during the review time was inspected and it was administered. I thanked them for their co-operation during the care and adhering to all the education giving. I formally informed

them about the termination of care since child health has been restored. I handed child to the mother and emphasized on the need to report to the nearest health facility when there is any unusual manifestation. They agreed to this recommendation. The mother accepted to take good care of child.

CHAPTER FIVE

EVALUATION OF CARE RENDERED TO PATIENT AND FAMILY

5.0 Introduction

At this stage, the nurse determines the patient's response to the nursing interventions implemented and the extent to which the objectives have been achieved. This determines the

accuracy of the formulated nursing diagnosis and its related measure put in place to relieve the patient from the specific problem. Unachieved goals of nursing care plan are amended and care is terminated afterwards with conclusions made on the care rendered.

5.1 Statement of Evaluation

Through the maximum cooperation of child, the mother and staff of the pediatric ward of Sunyani Regional Hospital, child fully recovered from her illness and was finally discharged home on the fifth day of admission with all goals fully met. During the period of hospitalization, five health problems were identified on child and family in which objectives were set to solve them.

Child's respiration rate was restored to normal ranges

On 7th December, 2021 at 8:30am, nursing diagnosis of ineffective breathing pattern related to hyper-production of bronchial secretions secondary to bronchial irritation was formulated. A nursing objective was set to restore child's respiration rate to normal ranges (30–60cpm) within 48 hours Appropriate nursing interventions carried out on child include; Mother was reassured that measures will be taken to restore normal breathing pattern, Tight clothing around the patient's neck, chest, and waist were removed to aid in easy breathing, Patient was put in a semi-fowlers position by the nurse to aid breathing, Child's vital signs (temperature, pulse respiratory rate) were monitored paying particular attention to respiration and oxygen saturation, Nearby windows were opened to allow fresh air in, The mother was educated on dyspnea and its management was done. Mother expressed satisfaction with education done.

On 9th December 2021 at 8:30am, the goal that was set to restore child's breathing pattern to normal was fully met as Child's respiratory rate recorded 42cpm and mother reported that, child could breathe without difficulty.

Child temperature was restored to normal

On 7th December 2021 at 9:00am, nursing diagnosis of hyperthermia related to the inflammatory process in the lungs and bronchial structures (Bronchopneumonia) was made for temperature (38.2^{o}C). Nursing objective was made to restore child's body temperature to normal (36.7 - 37.3 degree Celsius) within 24hours. The following nursing actions were implemented within the period set to achieve goals; Child was tepid sponged with tepid water and towels, IV Fluids: N/S 500mls, DNS 500mls was administered to keep child hydrated, Nearby windows were opened to ensure adequate ventilation in the room, Extra clothing like pullovers were removed from the patient, IV paracetamol 92mg was administered tds x 24hrs, Vital signs were continuously monitored (temperature, pulse, respiration) as sponging was done to determine the effectiveness of the Procedure. Temperature dropped by 0.8^{o}C at 30 minutes of implementing care.

On 8th December 2021 at 9:00am, the objective that was set to restore child's body temperature was evaluated and goal was fully met as Patient's temperature was checked and recorded as 36.5, Mother verbalized that, child was no longer warm to touch.

Mother was relieved of anxiety

On 7th December at 10:00am 2021, child's mother was observed to be anxious and did not know what to expect as various interventions were carried out on child. This was evidenced as mother trying to find out the prognosis of child's condition and why immediate attention has been shifted to child. A nursing diagnosis of Anxiety related unknown outcome of disease process and its management. Nursing objective was set to relief mother of anxiety within the period of 24 hours. The following interventions were carried out: Mother was reassured of competent nursing care, on assessment mother was showing signs of mild anxiety, mother was allowed to verbalize concerns. She asked of the possibility of child's survival, Mother was introduced to Miss E.A who was recovering from right lobar pneumonia in the same cubicle as J.A.D, All questions posed by mother were answered in the local language in which mother understands. This improved communication between patient and staffs, every procedure and its rational were explained to the mother.

On 8th December 2021 at 10:00am, child's vital signs were recorded per the appendix. The objective that was set to relieve mother of anxiety was evaluated and goal fully met as mother verbalized a relief of anxiety, on observation mother was relaxed and cooperative in the care.

Child was relieved of frequent coughing

On 7th December at 11:00am 2021, nursing diagnosis of cough related to inflammatory process in the lungs was made. Nursing objective was formulated to relief child from coughing within 72hours. The following nursing actions were implemented within the period set to achieve goals; Mother was reassured on the available treatment measure to reduce the cough, Mother was educated to cover the mouth of child with tissue when coughing to prevent the rate of spreading the infection, Patient was propped-up in bed, The mother was educated on the proper way of disposing used tissues in order to prevent spread of infection, Patient was nursed in a

well-ventilated and tidy room with limited exposure to dust, Prescribed medication (suspension Amoxiclav 5mls tdsx 7and IV Benzylpenicillin 0.5mu qid x 72hours) was served to combat infection, reducing irritation and cough.

On 10th December 2021 at 11:00am, the objective that was set to relief child of cough within 72 hours was evaluated and goal was fully met as there was a reduction in the frequency of cough on observation and Mother reported the absence of cough in her child

Child's normal nutritional pattern was restored

On 7th December at 12: 00pm 2021, nursing diagnosis of imbalanced nutrition (less than body requirement) related to inadequate dietary intake secondary to infectious processes was formulated. An objective was set to help Child regain her normal nutritional pattern within 48 hours. The following nursing intervention were carried out: Mother was reassured of the available measures to help child regain her normal dietary pattern, Child's weight was checked and recorded as 5kg, Mother was educated on essential nutritional measures needed for the development and recovery of the child, Child was breastfed frequently in small quantities as tolerated, Enough rest was ensured for child to conserve energy to improve her ability and desire to ingest food, Rendered care was documented to ensure continuity of care.

On 9th December 2021at 12:00pm, the object set to help child regain her normal nutritional pattern within 48 hours was evaluated and goal was fully achieved as child maintain normal body weight of 5kg and Mother reported that child has regained appetite.

Mother had in-depth knowledge on pneumonia

On 8th December 2021 at 9:10am, nursing diagnosis of knowledge deficit (mother) related to the technical nature of information on Bronchopneumonia was formulated. The following nursing

interventions were carried out. A calm environment was created for teaching and learning by providing seats for mother, ensuring privacy and minimizing all forms of destructors like noise. Images on pneumonia prevention were shown to ensure easy memory, Mother was asked to share what she knows about pneumonia, Mother mentioned some clinical features of Bronchopneumonia, Mother was educated on the causes, signs and symptoms, management and prevention of pneumonia. Immediate seeking of medical attention was stresses when symptoms are observed, mother was encouraged to ask questions which were answered in simple clear language, mother demonstrated understanding of the condition by answered every questioned asked correctly. Procedure was documented in the nurses' notes for the continuity of care.

On 10th December 2021 at 9:10am, the objective set to help mother gain adequate knowledge on Bronchopneumonia within 48hours was evaluated and goal was fully met as mother was able to provide correct answers to questions posed to her with regard to the causes and prevention of pneumonia and mother was observed practicing knowledge gained on pneumonia

5.2 Amendment of the Nursing Care Plan

Despite the numerous problems identified, with the individualized comprehensive nursing care and support from other members of the health team and co-operation of J.A.D and family, all of the goals set were fully met on the allocated time. The care plan was therefore not amended.

5.3 Termination of care (20th December, 2021)

Termination of care is the period that ends the therapeutic relationship with the patient and family. It started right from the day of admission till the day of last home visit on the 20th December, 2021. This was done to enable family to accept that care would not be there forever. I made it known to the family that they were only in the hospital temporally but in the end they would be discharged home to continue treatment. During my last home visit, I stressed on the

need to adhere to the education given to them during the period of hospitalization and on the need to report any signs and symptoms to the nearest facility. The importance of personal and environmental hygiene was mentioned. Because there was no community health nurse around, child was handed over to the mother. Mother accepted and promised to take a very good care of her.

CHAPTER SIX

SUMMARY AND CONCLUSION

6.0 Introduction

As the final chapter of the patient/family care study, it entails the summary and conclusion of the student's personal appreciation of the therapeutic relationship with the patient as well as the use of the nursing process.

6.1 Summary of care rendered

J.A.D is a 2 months old girl who was admitted to the pediatric ward for five days starting from 7th December to 11th December 2021 with the diagnosis of bronchial pneumonia. On admission, vital signs measure temperature – 38.2^{o}C, pulse - 155 bpm, respiration - 55 cpm and

oxygen saturation of 97%. During J.A.D's period of hospitalization, 5 health problems were identified on him and family. The following laboratory investigations were carried out;

1. Physical examination and history
2. Blood for full blood count (FBC)
3. Blood film for Malaria Parasite (MP's)

She was managed on the following orders;

1. IV Benzylpenicillin 0.5mu qid x 72hours
2. Suspension Amoxiclav 5ml bd x7
3. Saline nasal drop 2drops tds x 48hours
4. IV Gentamycin 33mg daily x 24 hours
5. Suppository paracetamol 125mg tid x 3
6. IV paracetamol 92mg tds x24 hours
7. IV Fluids: N/S 500mls, DNS 500mls all for 24 hours

On 11th December, 2021 during the routine ward rounds, child was discharged and scheduled for review on 19th December, 2021. She was discharged on Syrup paracetamol 2.5mls tds x 5. The family honored the review date. They were educated on the causes and prevention of pneumonia. Also, education on personal and environmental hygiene was taught when we had the encounter.

Three home visits were carried out at different times to check the cause of child's condition, monitor the adherence to the treatment regimen and education given and the handing over of patient to family. Care was terminated on 20th December, 2021during the last home visit. Patient is now feeling better and healthy.

6.2 Conclusion

In conclusion, my choice of nursing J.A.D and family has strengthened my knowledge on pneumonia. It has broadened my knowledge on the causes, risk factors, clinical manifestations, diagnosis, treatment regimen, complications and possible prevention of the disease condition. Also, it has helped me on how holistic care is rendered using the nursing process and involving the family on an individual care.

I therefore recommend that patient/ family care study should be continued and every nursing student should be given the opportunity to embark on the study. This is because, it has really given me a better understanding of using the nursing process to render quality nursing care to patients in future. Also, every health institution should employ the use of the nursing process, so as to enable them provide individualized, holistic and comprehensive nursing care to their patients to improve nursing care render.

APPENDIX

TABLE 12: VITAL SIGNS

DATE	**TIME**	**TEMPERATURE (^{O}C)**	**PULSE (bpm)**	**RESPIRATION (cpm)**
7/12/2021	8:00am	38.2	155	55

	2:00pm	37.0	165	43
	6:00pm	37.8	152	42
	10:00pm	36.9	150	40
8/12/2021	6:00am	36.1	144	46
	2:00pm	37.0	165	43
	6:00pm	35.6	143	41
	10:00pm	36.5	132	41
9/12/2021	6:00am	37.8	152	42
	10:00am	35.6	156	40
	2:00pm	37.0	152	42
	6:00pm	36.5	152	46
	10:00pm	36.9	150	47
10/12/2021	6:00am	37.7	150	47
	10:00am	36.9	150	40
	2:00pm	37.3	181	44
	6:00pm	37.3	144	39
	10:00pm	35.7	140	40

11/12/2021	6:00am	36.6	144	40
	10:00am	36.3	165	38

BIBLIOGRAPHY

Hinkle, J. L., & Cheever, K. H. (2014). *Brunner & Suddarth's textbook of medical-surgical nursing* (13th ed.). Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.

Chochar, N. (2018). *Nursing Intravenous Drug Handbook*, (6th ed.). Pennyslvania: Springhouse Co – operation.

Howat, J.A., (2021). *General and Systematic Pathology*, (1st ed.). United Kingdom: Churchill Livingstone.

Lippincott, W., & Wilkins J. (2018). *Drug Handbook for Nurses*, (29th ed.). United States Of America: Philadelphia.

Weller, B. F. (2014). *Baillier's Nurses' Dictionary for nurses and health care Workers* . London: Elsevier Ltd

Patient folder number-695/21 (unpublished material) Regional Hospital Sunyani.

SIGNATORIES

1. The Student Nurse.

Name: ADINKRA KWASI GODWIN

Signature:.....

Date: 06/10/2022

2. The Nurse-In-Charge of the Pediatric Ward (Bono Regional Hospital, Sunyani)

Name: MRS JENNIFER .O. ADDO

Signature:.....

Date: 06/10/2022

3. The Supervisor, Holy Family Nursing and Midwifery Training College, Berekum

Name: ERIC OBENG

Signature:.....

Date: 06/10/2022

4. The Principal, Holy Family Nursing and Midwifery Training College, Berekum

Name: MONICA NKRUMAH

Signature:..... (for)

Date: 07/10/2022

ACADEMIC CO-ORDINATOR-NURSING
HOLY FAMILY NURSING & MIDWIFERY
TRAINING COLLEGE, BEREKUM