HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE

BEREKUM

PATIENT/FAMILY CARE STUDY ON

BRONCHIOLITIS

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

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PREFACE

Patient and family Care Study is a written document of the Nursing Care rendered to a patient and his/her family within a stipulated period to meet the patient and family's Physical, Psychological, Social and Spiritual needs.

It gives the student the opportunity to put into practice the nursing experience he or she has acquired during training. In writing the case study, the student nurse must use the nursing process and the nursing experience he or she has acquired during the period of training. Information gathered during the assessment phase through interaction with the patient, his family, health workers and from literature review is used to give an accurate and proper nursing care to the patient and family members. The care study begins when patient first reports to the hospital, continues throughout admission and discharge and terminated with visits and rehabilitation at home.

This study helps the student nurse to get detailed knowledge of the risk factors, causes, pathophysiology, clinical features, diagnostic investigations, treatment, and prevention of the disease condition of the patient chosen for the study. The in-depth knowledge of the condition helps to incorporate proper nursing care. It also helps students to establish good interpersonal relationships with patient and their families as well as the health team. It is for the above reasons that student nurses are given the opportunity to undertake such projects. The initials for the names of patients, family members, and clinicians involved in the study are used.

ACKNOWLEDGEMENT

Glory and honour unto the omnipotent, omnipresent, and omniscient God for His protection, guidance, love, wisdom, strength and understanding before and throughout this study.

I wish to express my sincere gratitude to patient, K.A. M's mother and his family for their co-operation, support, consent to interact with me and necessary information given to me during their stay at the hospital and the home visit.

I would also wish to express my gratitude to the teaching staff of the Holy Family Nursing and Midwifery Training College Berekum for their guidance and time especially Ms. Rita Agyei Boakye under whose supervision this study became a success.

Again, my appreciation goes to the doctors and nursing staff of the Paediatric ward of the Sunyani Regional Hospital for their support and guidance that has made this script a reality.

My next appreciation goes to Mrs. Ellen Agyeiwaa, the ward in-charge of the nurses at the paediatric ward of Sunyani Regional Hospital for their encouragement and contributions. I also express my gratitude to the authors and publishers of various books from which I took valuable information to write this script.

INTRODUCTION

The study was carried out on K.A.M, K.A.M is 9 months old boy who was admitted to the paediatric ward for five days starting from 18th August to 22nd August 2023 with the diagnosis of bronchiolitis. On admission, vital signs measure temperature - 38.5^{o}C, pulse - 130 bpm, respiration - 50 cpm and oxygen saturation of 92%. During K.A.M's period of hospitalization, 6 health problems were identified on him and family namely; child experienced difficulty breathing (50 cycles per minute), Child had high body temperature of 38.5^{o}C, child was weak, mother complained of poor feeding, mother was anxious about the disease outcome, mother expressed very little knowledge about disease condition. Child was managed on the following medications; IV Rocephin 665mg daily x 24 hours, Nebulize salbutamol 2.5mg start then 3 cycle x 24 hours, IV paracetamol 110mg tid x 24 hours, IV Dextrose in normal saline 500ml x 24 hours, Norma saline nasal drop 2 drops in each nostril, Syrup vitamin C 5ml bd x 5

On 22nd August 2023 during the routine ward rounds, K.A.M's was discharged and was scheduled to come for review on 26th August, 2023. He was discharged on syrup paracetamol 5ml tid x 5, suspension Amoxiclav 2.5ml bd x 7, normal saline nasal drop 2 drops in each nostril and vitamin c 2.5ml tid x 7. The family was educated on the causes and prevention of bronchiolitis. Also, education on personal and environmental hygiene was taught when we had an 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 Sunday 30th August, 2023 during the last home visit. Patient is now feeling better and healthy and has started schooling.

The nursing process is an integrated approach in the nursing profession, in which long and short-term objectives are set and measures implemented according to the priority needs of the patient. These are evaluated to see how effective the plan has helped in management of patient.

This script is written in five chapters to cover the six steps in the nursing process concept, and they are as follows; Chapter one gives information and assessment made on the patient and his family. It involves patient's particulars, developmental history, past medical history, present medical history, patient/family medical and socio-economic history as well as literature review of the condition.

Chapter two gives insight into the pharmacology of drugs prescribed and the comparison of laboratory investigation conducted in the treatment of K.A.M with standards. It gives comparisons made on the signs and symptoms presented by the patient in relation to those in the literature review. Patient's health problems and strengths are also covered in this chapter.

Chapter three discusses the actual nursing care rendered to relieve patient of the problems he presented and encountered during hospitalization. Chapter four presents the implementation of plan including preparation of patient and family for discharge and rehabilitation.

Chapter five includes the implementation of home visits and follow up care rendered to patient and family. Chapter Six includes the evaluation of care rendered to patient and his family, amendment of nursing care plan for partially met and unmet goals. It also comprises of termination of care, summary of care, conclusion, and recommendation.

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CHAPTER ONE

ASSESSMENT OF PATIENT/FAMILY

1.0. Introduction

According to (Weller, 2019) ,assessment involves the gathering of information about the health status of the patient, analysis, and synthesis of the data, and the making of clinical nursing judgement. The outcome of the nursing assessment is the establishment of a nurse's diagnosis which is the identification of the nursing problems. This is the systematic collection of data to determine the patient's health status and any actual and potential health problems and is the first phase in the nursing process. This data can be taken from the patient, his relatives, and the community in which he lives in, medical personnel, patient folder, and laboratory investigations. Some methods of collection of the data are through interviews, observations, and other techniques. This is done to help identify the patient and family needs and to plan an effective medical and nursing care towards recovery. This forms the basis of nursing care. This chapter focus on patient's particulars, patient/ family medical history, socioeconomic history, developmental history, lifestyle and hobbies, past and present medical history, admission of patient, family concept of illness, literature review of malaria and validation of data.

1.1. Patients Particulars

Patient's particulars are defined as the biographical state of an individual within a geographical area at a particular time. K.A.M, a 9months year old boy was born at the Kole-Bu teaching hospital in the Greater Accra Region to Madam M.A. and Mr. I.A. He is the senior twin. K.A.M. comes from Accra and resides at Kotokrom. He is learning how to speak and he is fair in complexion. K.A.M. weighs 9.5 kg and has a height of 70.1cm. He and his entire family are

Muslims and worship at the Kotokrom Mosque. He has not started school yet. Child's mother is the next of kin.

1.2. Patient Family's Medical History

According to Madam M.A. all his grandparent, father and siblings are all alive and healthy. Although, there is a history of asthma in the family and this is hereditary but there is no mental disorder in the family. Madam M.A. made mention that they suffer some ailments like malaria, headache, fever, and abdominal pains which are treated by self-medication using over the counter medicines and traditional medicines. But if symptoms persist, they report to hospital. According to mother, this is the first time the child has been admitted to the hospital after birth. Food and drug allergies have never manifested in any family member. Child and other family members are not registered on the National Health Insurance Scheme (NHIS). They practice cash and carry system of health service.

1.3. Family's Socio-Economic History

K.A.M. has no family member noted for being a drug or alcohol addict. He is in a family with good interpersonal relationship. Madam M.A. revealed to me that most of the family members are public service workers with the rest depending solely on the income made by trading and masonry. Any family member is always willing to support at every point in time of need. Notwithstanding, his mother Madam M.A. has been the most caring lady to him. All the bills of K.A.M. are paid in cash since he is not covered by the national health insurance scheme. I encouraged the patient's parent to register their son with the national health insurance authority as this could help reduce their cost of medical bills in the future.

1.4. Patient's Developmental History

Growth is the irreversible increase of an organism size over a given period whiles development is the progressive changes in shape, size, and function during the life of an organism by which its genetic potentials are translated into functioning. Development is commonly described in terms of periods. The most widely used classification of developmental period, early childhood, middle and late childhood, adolescence, early adult, and maturation can be defined as the changes in thinking, sense of responsibility, and better ability to adjust to successfully meet the daily issues (Singh, 2022).

According to Madam M.A. she did not have any problem during her pregnancy. She attended antenatal clinic regularly till her time of labour. She delivered via vaginum. K.A.M. was immunized against the vaccine preventable diseases like measles, tuberculosis, diphtheria, whooping cough, poliomyelitis, and tetanus. BCG which was evidenced by child health record book and scar on child's right upper arm. K.A.M. was exclusively breastfed for 6 months as recommended. He went through a normal developmental milestone such as sitting, and crawling at the ages of four, seven months respectively. He has neither walk nor talk yet, but he can stand with support and try to mimic others.

According to Erick Erickson psychosocial theory K.A.M. who is 9months falls under trust vs mistrust of the theory. At this stage, feeding is the number one priority. On this level of development, the child utterly depends upon adult caregivers especially their parent for survival. Provisions like food, love, warmth, safety, and nurturing are made available. If the child successfully develops trust, the child will feel safe and secure in the world. If caregivers fail to provide adequate care and love, the child will come to feel mistrust. Caregivers who are

inconsistent, emotionally unavailable, or rejecting contribute to feelings of mistrust in the children under their care. Failure to develop trust will result in fear and a belief that the world is inconsistent and unpredictable. From this, I can boldly say K.A.M. for has achieved the trust aspect of this theory as his immediate caregiver provide all his basic needs for him. She is always available to always confer support and love during the hospitalized period.

1.5. Patient's Lifestyle and Hobbies

Madam M.A. said K.A.M. could sleep and wake up at any time but he mostly sleeps at 7:00 pm and wake up within short intervals. He goes back to feed after short breastfeeding sessions. Madam M.A. said she cleans his mouth every morning with a piece of clean cloth with water, K.A.M empties his bowel and bladder in a pampers and bath twice in a day. Madam M.A. breastfeed him in addition to giving weaning feeds. He is yet to adapt to a specific lifestyle and hobby.

1.6. Patient's Past Medical History

According to K.A.M.'s mother, this was the first time K.A.M has been admitted to the hospital. He has never experienced any childhood like whooping cough, poliomyelitis, tetanus, tuberculosis, and diphtheria except bronchiolitis which was during admission. He has not developed any allergy to drugs, food, or animals. It has been revealed that he often suffers from minor ailments like headache and common colds which he usually treats with traditional medicines and over-the-counter medicines. He has never been involved in an accident and has no physical disabilities. This was his first time of been admitted to the hospital.

1.7. Patient's Present Medical History

K.A.M. was well until 18th August,2023 when mother observed difficulty breathing, high body temperature and anorexia. It happened suddenly and started progressing from that moment so he was sent to Sunyani Regional Hospital by his mother. K.A.M. was sent to the outpatient department and was initially diagnosed of suspected respiratory tract infection after laboratory investigation and physical examination. Patient was admitted to the Paediatric ward after going for chest x-ray which confirmed the diagnosis as Bronchiolitis.

1.8. Admission of Patient

On the 18th of August,2023 at 3:30pm child was admitted into the Paediatric ward of Sunyani Regional hospital from Outpatient Department. Child was brought by his mother and was accompanied by a nurse with the diagnosis of bronchiolitis. On arrival, mother and accompanying nurse were welcomed to the nurses' station. Necessary documents including patient's folder number was taken from the nurse and a quick confirmation was done as means of validation. child was offered an admission bed and mother reassured that necessary measures will be implemented with their cooperation to restore health. On examination, child was weak, febrile, respiratory stridor and difficulty breathing were present. His vital signs were checked and recorded as follows;

- Temperature-38.5 degree Celsius.
- Respiration-50 cycle per minute.
- Pulse-130 beat per minute.
- Spo2-92 percent.

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

- IV Rocephin 665mg daily x 24 hours
- Nebulize salbutamol 2.5mg start then 3 cycle x 24 hours.
- IV paracetamol 110mg tid x 24 hours
- IV Dextrose in normal saline 500ml x 24 hours
- Normal saline nasal drop 2 drops in each nostril
- Syrup vitamin C 5ml bd x 5

Drugs were obtained from the pharmacy and IV Rocephin 665mg, IV paracetamol 110mg, Nebulize salbutamol 2.5mg, Normal saline nasal drop 2 drops in each nostril and syrup vitamin "C" 5ml were administered as ordered. Laboratory investigations ordered at the OPD were Full Blood Count, blood for Malaria Parasite (MP's), chest x-ray. Samples were taken for various investigation awaiting results.

I introduced the staffs present as well as myself to child's mother as those who will take care of child. She was oriented to the ward and its annexes such as the toilet and the bath room. Also, mother was introduced to other patients on the ward including those who have same condition and recovering. Ward policies regarding visiting periods, payment of bills, ward meals time and the time vital signs will be checked and others were explained to the mother. Child'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. He was made comfortable in bed.

When K.A.M's condition was stable and responding to treatment, I reintroduced myself to patient's mother as a student nurse of Holy Family Nursing and Midwifery Training College, Berekum, who would like to take his son and family for a patient/family care study. Madam

M.A. 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 license in Diploma in Registered General Nursing. I explained to the patient's mother and his 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 process. K.A.M's mother and relative agreed to my request and assured me of providing the necessary information and assistance. I congratulated them on such a decision. Discharge planning was initiated with the relatives; thus, they were told that the hospital will be a temporal place for their care and would have to continue the care at home once there is an improvement in his condition. I informed the ward in-charge about my interest in the using the patient for my care study and permission was granted for me to move on with the care study. I decided to choose this patient for the care study because I wanted to get a deeper understanding about the causes, signs and symptoms, prevention and treatment of Bronchiolitis and to be able to differentiate it from other similar conditions.

1.9. Patient concept of illness

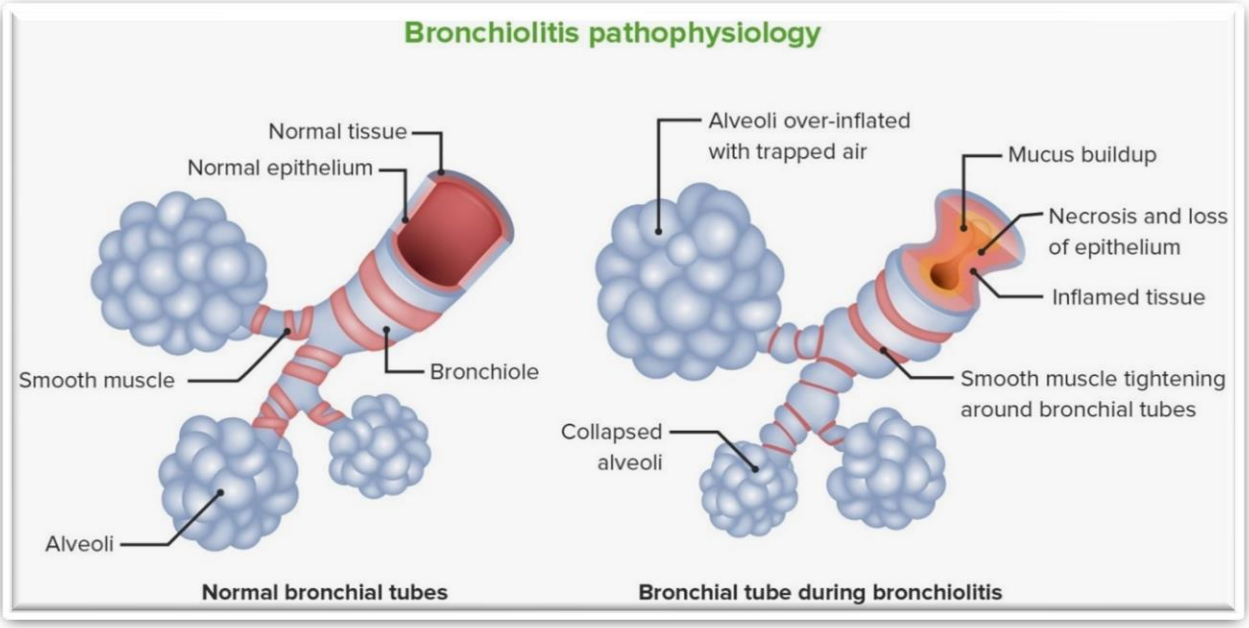
K.A.M.'s mother did not attribute the cause of her son's illness to any evil spirit. She believed that, periodically it is sometimes normal for one to fall sick. She was hopeful that her son will get well soon.

1.10. Literature Review on Bronchiolitis

ANATOMY OF THE BRONCHIOLES

According to Waugh and Grant (2018), Within each lobe of the lungs tissue is further divided by fine sheets of connective tissue into lobules. Each lobule is supplied with air by terminal bronchiole, alveolar and large numbers of alveoli. There are about 150 million alveoli in the

adult lungs. It is in these structures that the process of gas exchange occurs. As the airway progressively divide and become smaller and smaller, their walls gradually become thinner until muscle and connection tissue disappear, leaving a single layer of simple squamous epithelial cells in the alveolar ducts and alveoli. These distal respiratory passages are supported by a loose network of elastic connective tissue in which macrophages, fibroblasts, nerves, and blood and lymph vessels are embedded.



Retrieved from (Waugh and Grant (2018)

Definition of Bronchiolitis

Bronchiolitis is the inflammation of the bronchioles usually caused by an acute viral illness. It is the most common lower respiratory tract infection in children younger than 2 years of age. Respiratory distress impedes appropriate oral intake resulting in frequent clinician visits and admissions to the hospital.

Incidence of bronchiolitis

According to National Centre for Health Statistics (2016), In the northern countries, the outbreaks of bronchiolitis caused by Respiratory syncytial virus (RSV) occur during winter and early spring with a peak in January.

Risk factors for development of bronchiolitis include the following.

According to National Centre for Health Statistics (2016)

- Preterm birth
- Chronic lung disease
- Complicated congenital heart disease
- Immunodeficiency
- Infants under 3 months of age
- Presence of other underlying chronic illness

Causes of bronchiolitis

Most cases of bronchiolitis result from viral pathogen which includes.

- Respiratory syncytial virus (RSV)
- Rhinovirus
- Human metapneumovirus (hMPV)
- Parainfluenza virus

- Adenovirus

Pathophysiology on Bronchiolitis

According to Sommer et al… (2017), The underlying pathophysiology is inflammation of the small airways (bronchioles). Infection of the bronchiolar and ciliated epithelial cells that produces increased mucous secretion, cell death and sloughing, followed by a bronchiolar lymphocytic infiltrate and submucosal oedema. This combination of debris and oedema results in distal airway obstruction. During expiration, the additional dynamic narrowing produces disproportionate airflow decrease and air trapping. The effort of breathing is increased due to increased end expiratory lung volume and decreased lung compliance. Recovery of pulmonary epithelial cells occurs after 3–4 days, but cilia do not regenerate for approximately two weeks the debris are cleared by macrophages.

Signs and Symptoms of bronchiolitis

- Tachypnea - rapid or fast and shallow breathing
- Tachycardia – abnormally rapid action of the heart and consequent increase in pulse rate
- Fever – high body temperature of 38-39 ºC
- Runny and stuffy nose
- Cough
- Audible wheezing sounds
- Vomiting
- Irritability
- Loss of appetite

Diagnostic Investigation of bronchiolitis

- History and Physical examination to assess for the breathing pattern.
- Chest x-ray to detect any deviation from normal.
- Haematology to determine haemoglobin level estimation, white blood cell etc.
- Lung biopsy to determine any abnormality.
- Rapid viral antigen or nucleic acid amplification testing of nasopharyngeal secretions for respiratory syncytial virus.

Treatment of bronchiolitis

The aim of the treatment is to destroy the organism involved and prevent further complications. Among numerous medications used to treat bronchiolitis, only oxygen appreciably improves the condition of young children. Therefore, oxygen therapy is directed toward symptomatic relief and maintenance of hydration and oxygenation.

Medical Treatment

1. Antiviral agent (eg ribavirin) for respiratory syncytial virus
2. Antibiotic for a suspected bacterial infection

Non pharmacotherapy of bronchiolitis

Supportive care for patients with bronchiolitis may include the following.

1. Maintenance of hydration with IV fluids
2. Oxygen therapy to treat hypoxia.
3. Antipyretic to control high temperature.
4. Multivitamin to boast immunity if necessary.

Specific Nursing Management of bronchiolitis

Reassurance

Infants with bronchiolitis mostly present with fever, and chills therefore, patient and family will become anxious. Psychological support to patient is necessary to assure that requisite care will be given to allay fear of the unknown. Encourage patient to ask questions relating to his/her condition. 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 to elicit adequate co-operation.

Improving airway patency

Removing secretions is important because retained secretions interfere with gas exchange and may slow recovery. Promoting adequate hydration is necessary to break down the impacted mucous for easy expectoration. Deep breathing and coughing exercise are encouraged to promote maximum lungs expansion and mucous expectoration respectively. 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 to conserve energy, promote relaxation and to aid in recovery process as well as to relieve psychological stress. Nurse patient in a comfortable bed in a possible free noise environment. Encourages patient to perform only tolerable exercises to prevent the exacerbation of symptoms. The patient should assume a comfortable position to promote rest and breathing; and should change positions frequently to enhance secretion clearance and pulmonary ventilation and perfusion. Bed rails should be raised and padded to protect patient from fall.

Nutritional management

Children with shortness of breath mostly have poor appetite for food hence ensure IV nutrition (DNS or Dextrose 5%) in such individual. Also ensure oral care in to increase the appetite for food. Food should contain high calorie to supply the body with the necessary energy, adequate protein to repair the destroying and dead tissues. Vitamin supplement should be administered if necessary.

Observations

Vital signs such as pulse, respiration and temperature and oxygen saturation should be monitored to determine whether patient's condition is deteriorating or improving. Desired and side effects of drugs should be monitored. Mental orientation should be observed to know whether the patient is oriented to time, place, and person. 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 colour should be continuously assessed for jaundice, pallor, and oedema.

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 patient to report unusual effects of the drugs.

Personal hygiene.

Give mouth care regularly with clean gauze and normal saline to combat dryness or cracking of lips that might result from dehydration. Change dirty clothes frequently to prevent infection.

Exercise.

Encourage patient to change positions as well as stretching the arms and legs.

Elimination.

Change diapers regularly if soiled and apply powder to make the skin dry. Give fluids moderately to prevent constipation.

Education of patient's family

Educate patient and family on the disease, causes, predisposing factors, signs, and symptoms so that they report to the hospital in case any of them occurs. Teach patient and family how to take the prescribed drugs at the right time, right dose, and route. Educate patient on good nutrition and rest.

Complications of bronchiolitis

Without proper treatment, bronchiolitis can lead to life threatening complications such as;

- Acute respiratory distress syndrome (ARDS)
- Bronchiolitis obliterans
- Congestive heart failure
- Secondary infections such as pneumonia
- Myocarditis
- Arrhythmias
- Chronic lung disease

1.11 Validation of Data

The information gathered during the assessment phase must be complete, factual, and accurate because the nursing diagnosis and interventions are based on this information. Validation is the act of "double-checking" or verifying data to confirm that it is accurate and factual. The purpose of validation was done to ensure that data collection is complete, to ensure that objective and

subjective data agree, obtain additional data that may have been overlooked, avoid jumping to conclusion and differentiate cues and inferences.

CHAPTER TWO

ANALYSIS OF DATA

2.0 Introduction

This chapter involves comparison of data with standards, which consists of comparison of data collected from patient mother and those written in textbooks which includes diagnostic investigation, medications and clinical manifestations presented by the patient and treatment ordered. The patient's strength and health problems are also identified, and the appropriate nursing diagnosis formulated to help plan the needed nursing interventions.

2.1 Comparison of data with standard.

This aspect of K.A.M. care involved the comparison of his data with what was established by authorities in the textbooks or manuals. It includes the diagnostic investigations/tests carried on him, the cause of his disease condition, clinical features he experienced, treatment and complications developed.

2.2 Diagnostic investigation test

The following investigations were ordered and carried out on K.A.M. with interpretations.

- Full blood count
- Blood film for malaria parasites
- Chest X-ray

Table 1: Comparison of diagnostic tests carried out on my patient and with those of outlined in the literature review.

Diagnostic tests outlined in literature review	**Diagnostic tests carried out on the patient**
History and Physical examination	Complete physical examination was done.
Chest X-rays	Chest x-ray was done.
Complete blood count	Complete blood count was done for patient
Lung biopsy	Lung biopsy was not done
Rapid viral antigen or nucleic acid amplification testing	Rapid viral antigen or nucleic acid amplification testing was not done

With reference to the table, Chest X-rays which demonstrated hyper infiltration of the bronchial walls with mucus and a relative decrease in the lumen size due to inflammation, confirms the disease. Other laboratory investigations which were done gave a clue to the diagnosis of the condition as stated in the literature review. The malaria parasite estimation was done to rule out malaria because malaria is endemic and perennial in Ghana.

Table 2: Diagnostic investigation carried out on the patient with interpretation.

DATA	SPECIMEN	INVESTIGATIONS	RESULTS	NORMAL VALUE	INTERPRETATION	REMARKS
18/08/23	Whole body	Chest X-Ray	Hyper-inflammation of the bronchial tree and accumulation of mucus	The bronchioles should be free of accumulated mucus to facilitate gases conduction	Inflamed bronchioles	Child was given IV Rocephin 665mg, nebulized salbutamol 2.5mg 3 cycles
	COMPLETE BLOOD COUNT					
18/08/23	Blood	White blood cell count	7.85x10L	5-12.0 10/3ul	Above normal range indicating infection	Child was given IV Rocephin 665mg,
		Red blood cell count	$4.13x10^{12}$/L	3.9-5.1(10/6/ul)	Within normal range	No treatment was given
		Platelet	200x10-3ml	150-450 (10/3/ul)	Within normal range	No treatment was given
		Haemoglobin (Hb) level	10.5g/dl	12-14.4dl	Slightly below normal indicating slight anaemia	No treatment given
18/08/23	Blood	Malaria parasites	Negative	Negative	Patient has no malaria	No treatment was given

2.2 Causes of patient's condition

Considering the factors that cause bronchiolitis as indicated in the literature review, K.A.M. condition could be due to an invasion of bacteria as evidence by elevated white blood cell. Also, long exposure to dirt particles may be a contributory factor since they are living in a dusty area. From the above information, it shows that the cause of his illness conforms to that stated in the literature review.

Clinical features

Table 3: Comparison of clinical manifestation

Clinical features in literature review	**Clinical features manifested by patient.**
Tachypnoea	Tachypnoea was present
Tachycardia	Was present
Fever	Fever (38. 5ºC) was present
Runny and stuffy nose	Patient had runny and stuffy nose
Cough	Patient had dry cough
Audible wheezing sounds	Patient had audible wheezing sounds
Vomiting	Patient was not vomiting
Loss of appetite	Patient had loss of appetite
General malaise	Patient was weak.

From the comparison in the table 3 above, K.A.M did not exhibit some of the clinical manifestations mentioned in the literature review like vomiting because they reported early and was given right and immediate medical and nursing management. However, he exhibited most of the clinical manifestation stated in the literature.

Treatment

The following medications were given to patient to enhance the restoration of health status to normal during his period of hospitalization. The following treatment were given to patient.

- IV Rocephin 665mg daily x 24 hours
- Nebulize salbutamol 2.5mg start then 3 cycle x 24 hours.
- IV paracetamol 110mg tds x 24 hours
- IV Dextrose in normal saline 500ml x 24 hours
- Norma saline nasal drop 2 drops in each nostril
- Syrup vitamin C 2.5ml daily x 14 day
- Syrup Amoxiclav 149mg (2.5ml) bd x 7.

Table 4: Comparison of specific treatment given to patient to that of the literature**.**

Treatment in literature review	**Treatment given to patient**
Antiviral eg ribavirin	No antiviral medication was given
Antibiotics • Rocephin • Amoxiclav	Rocephin (cephalosporin) was prescribed. Amoxicillin was prescribed
Intravenous fluids (IV) fluids • 5% Dextrose in normal saline	4.3% dextrose in 1/5 normal saline was prescribed. Saline nasal drop 2 drops was prescribed
Vitamin • Vitamin C	Suspension Vitamin C was prescribed
Bronchodilator • Salbutamol	Salbutamol was prescribed
Anti-Pyretic • Paracetamol	Paracetamol was prescribed

From the table, the treatments given to child were in line with the literature. Antibiotics were also given to fight infection.

Table 5: Pharmacology of drugs for child

Date	Drugs	Dosage/ Route of administration (Literature)	Dosage/ Route of administration (Given to Child)	Classification	Desired effect	Actual Action Observed	Side Effect/ remarks
18/8/23	Rocephin	(50-100) mg per kilogram body weight per day IV/IM	665mg daily Route: IV	Cephalosporin	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
18/8/23	Intravenous Dextrose in saline	Amount depends on patient's fluid and electrolyte level, age as well as by doctors' prescription	500ml x 24 hours Route: IV	Colloid isotonic infusion	To correct fluid and electrolyte imbalance	Patient maintained normal body fluids and electrolytes level	Good skin turgor, cardiac overload. None was observed
18/8/23	paracetamol	Adults: 1g Children:125-250mg Route: Oral/rectal	110mg tid x 24 hours Route: IV	Anti-pyretic/ Analgesic	Act on the hypothalamus to produce antipyresis.	Body temperature was reduced.	Dizziness, light headedness. None were observed
18/8/23	Salbutamol (Nebulization)	Dosage: 2.5mg/500mcg per 2.5 Route: Oral	2.5mg tid x 24 hours. Route: Oral	Bronchodilator	It dilates the bronchioles to enhance normal breathing	Difficulty in breathing was relieved.	Flushing, headache, Restlessness.
18/8/23	vitamin C	Dosage: 2.5mg – 5mg x 30 days Route: Oral	2.5mg daily x 14 days Route: Oral	Multivitamin	To increase patient immunity	Patient's immunity was increased and wound healed on stipulated time	Flushing, Dry mouth. None was observed
18/8/23	Amoxiclav	Dosage: 250- 1.5g mg per day Route: IM/IV/Oral	Dosage: 149mg bd x 7 Rou**te**: oral	Penicillin antibiotic	Penicillin antibiotic, that inhibit protein synthesis	Child was relieved from any infection	Headache, nausea,. None was observed

2.3 Complications

With reference to the complications listed in the literature review, K.A.M exhibited no complication since he reported to the hospital early for treatment. Also, immediate diagnosis and interventions were implemented to foster tissue perfusion and oxygenation when he reported.

2.4. Patient/Family Strengths

Strength is the quality or state of being strong. This involves activities the patient can perform and those the family can also perform in helping the patient recover. The under mentioned strength were observed on patient and family.

1. Child can breathe well when placed in upright position**. (18/08/2023)**
2. Child sustained adequate hydration despite the presence of high body temperature **(18/08/2023)**
3. Child could eat about 40ml of porridge served **(19/08/2023)**
4. Child was able to perform passive range of activities **(19/08/2023)**
5. Mother was able to verbalize the presence of anxiety **(20/08/2023)**
6. Child mother could describe the nature of the cough as unproductive. **(21/08/2023)**

2.5 Patient/family's Health Problems

A health problem is any physical, social, and psychological stress on a patient that can cause a change in the progress of his health. During hospitalization of K.A.M and mother, the following health problems were identified:

1. Child experienced difficulty breathing **(18/08/2023)**
2. Child had high body temperature of 38.5 ºC **(18/08/2023)**
3. Child's mother complained of child not eating adequately **(19/08/2023**)
4. Child was weak **(19/08/2023**)
5. Child mother was anxious **(20/08/2023)**
6. Child's mother lacked adequate information about child's disease **(21/08/2023)**

2.6 Nursing Diagnosis

According to the North American Nursing Diagnosis Association (2017), Nursing Diagnosis is a clinical judgment about individual, family, or community responses to actual or potential health problems or life processes. Nursing diagnosis provide the basis for selection of nursing interventions to achieve outcome for which the nurse is accountable. Each nursing diagnosis describes a patient problem that a nurse can legally manage. The following nursing diagnoses were formulated about K.A.M. and mother based on the health problems presented

1. Ineffective breathing pattern related to bronchial congestion as evidenced by nurse observing child producing an inspiratory stridor while breathing **(18/08/2023)**
2. Hyperthermia (38.5 ºC) related to inflammation process as evidence by nurse observing the state of the child's body temperature **(18/08/2023)**
3. Risk for malnutrition as evidenced by inadequate food intake secondary to the disease process **(19/08/2023)**

4. Activity intolerance related to general body weakness as evidence by child's reluctance to move the body **(19/08/2023)**

5. Anxiety (mother) related to unknown outcome of condition as evidence by mother verbalizing it **(20/08/2023)**

6. Deficient knowledge related to lack of information on the cause, manifestations, management, and prevention of the disease condition **(21/08/2023)**

CHAPTER THREE

PLANNING FOR PATIENT AND FAMILY CARE

3.0 Introduction

Planning is the act or process of making out plans. Nursing care plan is the process of identifying patient's needs and facilitating holistic care, typically according to a five-step framework. A care plan ensures collaboration among nurses, patients, and other healthcare providers.

Planning is the third stage of nursing process in which the nursing process in which the nurse and the patient together consider the goals to achieve in meeting patients' potential problems in daily life to produce an individual care plan. The nursing care plan enables continuity of care and interventions to be carried out to help the patient to relieved of his problems.

3.1 Objectives for patient/family care

The following Objective and outcome criteria were set for patient and family care during the period of hospitalization to help solve their health problems identified.

1. Child would be relieved of dyspnea within 24 hours as evidence by;
    i. Nurses observing child as he experiences normal respiratory rate (30-35cpm)
    ii. Patient's mother verbalizing that child can breathe without difficulty.
2. Child would gain a normal body temperature (36.5°C - 37.5°C) within 24 hours as evidence by;
    i. Nurse observing thermometer reading for axillary temperature as within normal range (36.5°C - 37.5°C).
    ii. Mother verbalizing that child has been relieved of high body temperature.

3. Child would maintain an optimal nutritional status throughout the period of hospitalization as evidence by.

i. Nurse observing child as he maintains a normal body mass index throughout the period of hospitalization.
ii. Mother verbalizing that child has gain adequate appetite to food.

4. Child would gain adequate energy throughout the period of hospitalization as evidenced by:

I. Nurse observing child as he actively partakes in play on the ward.
ii. Mother verbalizing that child's activity level has improved.

5.Child's mother would be relieved of anxiety within 24 hours as evidenced by:

I. Nurse observing mother taking active participation in her child's care.
ii. Mother having cheerful facial expressions.

6. Mother would gain adequate knowledge into disease condition within period of hospitalization as evidenced by;

i. Nurse observing the family practice what was taught.
ii. Mother verbalizing correct answers to questions posed to her regarding the causes, management, and prevention of the condition.

Table 6: Nursing care plan for K.A.M

Date/ Time	Nursing Diagnosis	Objective/ Outcome Criteria	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation	Sign
18/8/23 At 3:50pm	Ineffective breathing pattern related to bronchial congestion as evidenced by nurse observing patient producing an inspiratory stridor while breathing	Child would be relieved of dyspnoea within 24 hours as evidence by; a. Nurses observing child as he experiences normal respiratory rate (30-35cpm). b. Patient's mother verbalizing that child can breathe without difficulty	1. Reassure child's mother of competent nursing care. 2. Assess for respiratory distress. 3. Put child in fowler's position. 4. Remove tight clothing from child's neck and chest region. 5. Monitor SPO2 and respiration. 6.Administer prescribe oxygen.	1. Mother was reassured on the pharmacologic and non-pharmacologic measures to control the breathing pattern of the child throughout the period of hospitalization. 2. Respiratory stridor and any sign of difficulty in breathing was assess in child. Use of accessory muscles for inspiration and expiration was ascertained. 3.Child was placed on mother's chest in the upright position. This helped to release respiratory distress. 4.Any constrictive clothing around child's neck and chest area were taken off to facilitate adequate chest expansion and breathing. 5. SPO2 was checked continuously for the first 4 hours with oxygen in situ. It was continued to monitor every 30 minutes apart for 2 hours, and hour interval for 2 hours then every 4 hours. 6. Oxygen was administered to child at a rate of 2L/min. It was remained in situ till respiratory effort normalized and weaned off.	19/8/23 At 3:50pm	Goal fully met as Nurse checked and recorded a respiratory rate of 32cpm. Mother verbalized child has obtained a normal respiratory rate.	F.A

Table 6: Nursing care plan for K.A.M. cont.

Date/ Time	Nursing Diagnosis	Outcome Criteria /Objectives	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation	Sign
18/8/23 At 4:00pm	Hyperthermia (38.5^{o}C) related to inflammation process.	Child would maintain a normal body temperature (36.5°C - 37.5°C) within 24 hours as evidence by; a. Nurse observing thermometer reading for axillary temperature as within normal range (36.5°C - 37.5°C). b. Mother verbalizing that child has been relieved of high body temperature.	1.Reassure patient mother of competent nursing. 2.Check and monitor vital signs(temperature) every 15 to 20minutes. 3.Remove extra clothing on child. 4.Tepid sponge patient with tepid water. 5.Administer prescribed antipyretics. 6. Document all nursing actions on child	1.Child's mother was reassured of competent nursing care to relieve anxiety. 2.Vital signs (temperature was check and monitored every 15 to 20 minutes to ensure body temperature is reducing to the normal range. 3. Child was exposed to the natural air leaving only diaper and light cloth on to enhance adequate ventilation on the body. 4.Child was tepid sponged to increase the control of body temperature through conduction and evaporation. 5. IV Paracetamol 110mg was administered to child. No drug reaction was observed 6. All nursing interventions performed on child were documented for continuity of care.	19/8/23 At 4:00pm	Goal fully met as child nurse checked axillary temperature as 36.5^{o}C and mother verbalized that child has been relieved of high body temperature.	**F.A**

Table 6: Nursing care plan for K.A.M cont.

Date/ Time	Nursing Diagnosis	Objective/ Outcome Criteria	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation	Sign
19/8/23 At 9:00 am	Activity intolerance related to general body weakness as evidence by child's reluctance to move the body.	Child would gain adequate energy throughout the period of hospitalization as evidenced by: I. Nurse observing child as he actively partakes in play on the ward. ii. Mother verbalizing that child's activity level has improved.	1.Assess child's level of activity as baseline data. 2.Monitor the child's vital signs. 3. Assess for the contributory factor for weakness 4.Breastfeed child on demand 5. Administer all dextrose infusions to child 6. Document all nursing actions on child	1.The child's level of activity was assessed as a baseline and further review was compared for any improvement 2.Pulse and respiration were monitored 4 hourly to ensure the child is remaining in a stable physiological state. 3. Poor nutritional intake and reduced HB were identified as the major contributing factors for weakness. Measures were implemented to promote adequate diet intake to promote HB level. 4. Child was breastfed whenever crying. Weaning food was also administered on frequent interval to promote caloric need. 5. IV fluid dextrose in saline 500ml solution was prescribed and infused over 24-hour period 6. All nursing interventions performed on child were documented for continuity of care	22/8/2023 At 9:00am	Goal fully met as evidence by nurse observed child actively partake in play and mother verbalized improvement in child's activity level	F.A

Table 6: Nursing care plan for K.A.M cont.

Date /Time	Nursing Diagnosis	Outcome Criteria /Objectives	Nursing Orders	Nursing Interventions	Date /Time	Evaluation	Sign
19/8/23 At 10:15am	Nutritional imbalance less than body requirement (weight loss) related to loss of appetite.	Child would maintain an optimal nutritional status throughout the period of hospitalization as evidence by. a. Nurse observes child as he maintains a normal body mass index throughout the period of hospitalization. b. Mother verbalizing that child has gain adequate appetite to food.	1.Reassure child's mother of competent nursing care. 2.Ensure child's oral hygiene is maintained. 3. Breastfeed child on demand 4. Administer all dextrose infusions to child 5.Monitor child's weight. 6.Administer prescribed multivitamins.	1.Child's mother was reassured on the dietary support that will be offered to the child. 2.Oral hygiene was performed to improve oral sensation and promote appetite. 3. Child was breastfed whenever crying. Weaning food was also administered on frequent interval to promote caloric need. 4. IV fluid dextrose in saline 500ml solution was prescribed and infused over 24-hour period 5.Child's weight was monitored to trace progress in weight and adequate nutritional intake. 6. Syrup Vit C 5mil was prescribed and administered to child	22/8/23 At 10:15am	Goal fully met as nurse observed child as he maintains his state of body mass index throughout the period and mother verbalized child had gain adequate appetite to food.	F.A

Table 6: Nursing care plan for K.A.M. cont.

Date/ Time	Nursing Diagnosis	Objective/ Outcome Criteria	Nursing Orders	Interventions	Date/ Time	Evaluation	Sign
20/08/23 At 8:00am	Anxiety (mother) related to unknown outcome of disease condition.	Child's mother would be relieved of anxiety within 24 hours as evidenced by: a. Nurse observing mother taking active participation in her child's care. b. Mother having cheerful facial expressions.	1. Reassure mother of competent nursing care 2. Establish rapport with family to gain their confidence 3. Allow mother to express all fears and ask questions if any. 4.Answer all questions from family in simple language. 5. encourage diversional therapy 6. Document all nursing actions performed on child	1. Mother was reassured that patient is in the hands of competent staffs that will do their possible best to manage the condition. 2. Mother was engaged in conversation to win her confidence. The condition was explained to her as well as available management. 3. Mother asked of the possibility of child's survival. She was allowed to see other patients on admission who were managed on similar condition and doing well. 4. All questions posed by the family was answered tactfully and in simple language to ensure that all doubt and worries were cleared to relieve anxiety. 5. Mother was involved in a conversation when she was seen alone on the ward. Also, television on the ward was put on to obtain her attention 6. All nursing interventions performed on child were documented for continuity of care.	21/08/23 At 8:00am	Goal was successfully met as nurse observed mother taking active participation in her child's care. Also, she demonstrated a cheerful facial expression	F.A

Table 6: Nursing care plan cont.

Date/ Time	Nursing Diagnosis	Outcome Criteria /Objectives	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation	Sign
21/08/23 At 8:15am	Deficient knowledge related to the causes, manifestation, Management, and prevention of disease condition.	Mother will gain adequate knowledge into disease condition within period of hospitalization evidenced by: 1.Mother being able to provide correct answers to questions posed to her regarding the causes, management, and prevention of condition. 2.Nurse observe that the family practice what was taught.	1. Assess family's knowledge on the condition. 2. Establish good rapport relationship with family. 3. Create a suitable environment for teaching and learning. 4.Educate family on the causes, clinical features, management, and prevention of the disease. 5.Document procedure in the nurses' notes.	1. Mother was asked to share what she knows about the condition. All misconceptions on condition were clarified. 2.Mother was allowed to sit on a comfortable chair as education was given on the condition. This was successful as it made her felt comfortable and cooperative. 3. A calm environment was created for teaching and learning by providing seats for mother, ensuring privacy and minimizing all forms of destructors. 4.The family was educated on the causes, signs and symptoms, management, and prevention of bronchiolitis. Immediate seeking of medical attention was stresses when symptoms are observed. 5.Procedure was documented in the nurse's notes for the continuity of care.	22/08/23 At 8:15am	Goal was fully met as child's mother being able to provide correct answers to questions posed and nurse observed family practicing what was taught.	F.A

CHAPTER FOUR

IMPLEMENTING PATIENT/FAMILY CARE PLAN

4.0 Introduction

Implementation is the step that involves action or doing and the actual carrying out of nursing intervention outlined in the plan of care. The primary focus of the implementation is the provision of individual self-care with maximum concentration. The patient and relatives were encouraged to participate by playing their part in the patient's speedy recovery. The nurse must promote the individuality child. The culture, religion, and socio-economic status of the patient must be respected. (Tony-Butler & Thayer, 2022).

4.1 Summary of Actual Nursing Care

This involves the actual implementation of nursing orders in the nursing care plan. A comprehensive nursing care was rendered to K.A.M from the day of admission (18th August, 2023) and continued till he was discharged on 22nd August, 2023. The nursing care rendered to the child are summarized on daily basis as follows.

FIRST DAY OF ADMISSION (18/08/2023)

On the 18th of August,2023 at 3:30pm child was admitted into the Paediatric ward of Sunyani Regional hospital from Outpatient Department. Child was brought by his mother and was accompanied by a nurse with the diagnosis of bronchiolitis. On arrival, mother and accompanying nurse were welcomed to the nurses' station. Necessary documents including patient's folder number was taken from the nurse and a quick confirmation was done as means of validation. Child was offered an admission bed and mother reassured that necessary measures will be implemented with their cooperation to restore health. On examination, child was weak,

febrile, respiratory stridor and difficulty breathing were present. His vital signs were checked and recorded as follows;

- Temperature-38.5 degree Celsius
- Respiration-50 cycle per minute
- Pulse-130 beat per minute
- Spo2-92 percent

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

- IV Rocephin 665mg daily x 24 hours
- Nebulize salbutamol 2.5mg start then 3 cycle x 24 hours
- IV paracetamol 110mg tid x 24 hours
- IV Dextrose in normal saline 500ml x 24 hours
- Normal saline nasal drop 2 drops in each nostril
- Syrup vitamin C 5ml bd x 5

Drugs were obtained from the pharmacy and IV Rocephin 665mg, Normal saline nasal drop 2 drops in each nostril, IV paracetamol 110mg, Nebulize salbutamol 2.5mg, and syrup vitamin "C" 5ml were administered as ordered. Laboratory investigations ordered at the OPD were Full Blood Count, blood for Malaria Parasite (MP's), chest x-ray. Samples were taken for various investigation awaiting results.

I introduced the staffs present as well as myself to child's mother as those who will take care of child. She was oriented to the ward and its annexes such as the toilet and the bath room. Also, mother was introduced to other patients on the ward including those who have same condition

and recovering. Ward policies regarding visiting periods, payment of bills, ward meals time and the time vital signs will be checked and others were explained to the mother. Child'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. He was made comfortable in bed.

At 4:20pm, child was observed to experience difficulty breathing, A nursing diagnosis of ineffective breathing pattern (dyspnoea) related to bronchial congestion was formulated and an objective was set to help the child have a normal breathing rate within 24hours. The following nursing interventions were carried out to achieve our objectives within 24hours; Mother was reassured on the pharmacologic and non-pharmacologic measures to control the breathing pattern of the child throughout the period of hospitalization. Respiratory stridor and any sign of difficulty in breathing was assess in child. Use of accessory muscles for inspiration and expiration was ascertained. Child was placed on mother's chest in the upright position. This helped to release respiratory distress. Any constrictive clothing around child's neck and chest area were taken off to facilitate adequate chest expansion and breathing. SPO2 was checked continuously for the first 4hours with oxygen insitu. It was continued to monitor every 30minutes apart for 2hours, and hour interval for 2hours then every 4hours. Oxygen was administered to child at a rate of 2L/min. It was remained in situ till respiratory effort normalized and weaned off.

At 5:30pm, Mother complained of the child been warm. Temperature was checked and recorded as 37.6^{o}C. An objective was set to reduce child's high temperature to the normal range within 24hours. Nursing interventions put in place were, Child's mother was reassured of competent nursing care to relieve anxiety. Vital signs (temperature was check and monitored every 15 to 20 minutes to ensure body temperature is reducing to the normal range. Child was exposed to the

natural air leaving on diaper and light cloth on to enhance adequate ventilation on the body. Child was tepid sponged to increase the control of body temperature through conduction and evaporation. IV Paracetamol 110mg was administered to child. No drug reaction was observed. All nursing interventions performed on child were documented for continuity of care

At 6pm, vital signs were checked and recorded per the appendix. He was monitored keenly on oxygen therapy. He was handed over to the night nurse.

At 10pm, child's vital signs were checked and recorded per appendix. He received second cycle of salbutamol 2.5mg nebulization. IV paracetamol 110mg and syrup Vit C 5ml were administered. He was monitored keenly throughout the night by the night nurses

SECOND DAY OF ADMISSION (19th August, 2023)

I met the family at 7am on this day. Per the report from the previous shift, child condition remained same throughout the night. No new complain was made by the mother during routine assessment. Vital signs were checked and recorded at 6am per the appendix. His medications IV paracetamol 110mg, cycle salbutamol 2.5mg nebulization and syrup Vit C 5ml were administered as prescribed. He was still on oxygen therapy and oxygen saturation was above 95% throughout the monitoring. He was groom and cared for mouth in the morning

On review this day, medical officer ordered for gradual weaning of child off oxygen. He added another dose of IV Rocephin 665mg for 24-hours and syrup paracetamol 5ml id x 5. He ordered for keen monitoring of child and fluid therapy

At 9:00am child was observed to be weak. History was weakness was assessed and mother affirmed the presence of weakness since admission. A nursing diagnosis was formulated to

relieve child from weakness and an objective was set and to be achieved throughout the child's stay in the hospital. The following nursing interventions were implemented; The child's level of activity was assessed as a baseline and further review was compared for any improvement. Pulse and respiration were monitored 4hourly to ensure the child is remaining in a stable physiological state. Poor nutritional intake and reduced HB were identified as the major contributing factors for weakness. Measures were implemented to promote adequate diet intake to promote HB level. Child was breastfed whenever crying. Weaning food was also administered on frequent interval to promote caloric need. IV fluid dextrose in saline 500ml solution was prescribed and infused over 24-hour period. All nursing interventions performed on child were documented for continuity of care

At 10pm, vitals were recorded per the appendix. Weaning off oxygen therapy initiated gradually with decreasing the flow of oxygen to child and simultaneous checking of SPO2. This continued till it was completely weaned off and a normal oxygen saturation was recorded.

At 10:15am, mother complained of child exhibiting poor appetite to food. He was observed not consuming his food served. Also, breastfeeding was not adequate as he was not sucking despite nipple introduced to the mouth. Nursing diagnosis was formulated and an objective was set to improve feed intake and maintain nutritional status throughout admission. The following activities were implemented to achieve the objective; Child's mother was reassured on the dietary support that will be offered to the child. Oral hygiene was performed to improve oral sensation and promote appetite. Child was breastfed whenever crying. Weaning food was also administered on frequent interval to promote caloric need. IV fluid dextrose in saline 500ml solution was prescribed and infused over 24-hour period. Child's weight was monitored to trace

progress in weight and adequate nutritional intake. Syrup Vitamin C 5mil was prescribed and administered to child

At 2pm, vital signs were checked and recorded with all values falling within the normal range as per appendix. Masked kenkey was offer to child and about 50% was consumed. He was put to breastfeed. Monitoring was ongoing. Syrup paracetamol 5mls was administered to child.

At 3:30pm, IV Rocephin 665mg was administered to child. Monitoring continued as IV fluid dextrose saline was insitu. Feeding was done is small but at frequent interval for foster adequate tolerance and prevent vomiting.

At 3:50pm, objective set on 18th August to relieve child from difficult breathing was evaluated. It was observed that child's respiratory rate recorded as 32cpm. Mother also verbalized child has obtained a normal respiratory rate. Goal was fully met

At 4:00pm, objective set on 18th August to relieve child from high bod temperature was evaluated. Goal was met at this period of evaluation as axillary temperature recorded as 36.5ºC and mother verbalized that child has been relieved of high body temperature.

At 6pm, vitals were checked and recorded per the appendix. Monitoring continued. At 10pm, vital signs were recorded per appendix. Syrup paracetamol 5mls and Syrup Vitamin C were administered by the night nurses.

THIRD DAY OF ADMISSION (20th August ,2023)

According to the report from the night shift, child was stable throughout the night as mother made no new complain. Child had intermittent sleep during the night as he wanted to be breastfed. Vital signs were checked and recorded at 6am per the appendix. His medications, syrup paracetamol 5ml

and syrup Vitamin C 5ml were administered as prescribed. Remaining volume of IV fluid dextrose saline was continued at 18 drops per minute. He was well groomed and cared for mouth in the morning when I met the family. Mother fed him with "hausa" porridge and about 40% of cup full was consumed.

At 8:00am, mother was observed to be anxious. She verbalized the presence of anxiety and she attributed it to poor food intake by the child. A nursing diagnosis was formulated for this problem and an objective was set to relieve mother from anxiety within 24-hour period. The following intervention were carried out to the achievement of the set objective. Mother was reassured that patient is in the hands of competent staffs that will do their possible best to manage the condition. Mother was engaged in conversation to win her confidence. The condition was explained to her as well as available management. Mother asked of the possibility of child's survival. She was allowed to see other patients on admission who were managed on similar condition and doing well. All questions posed by the family was answered tactfully and in simple language to ensure that all doubt and worries were cleared to relieve anxiety. Mother was involved in a conversation when she was seen alone on the ward. Also, television on the ward was put on to obtain her attention. All nursing interventions performed on child were documented for continuity of care.

Routine ward rounds was done this morning and medical officer ordered for continuous monitoring of child. He added suspension Amoxiclav 149mg ((2.5ml) bd x 7 days to child's medication. Drug was obtained from pharmacy for child.

Routine ward activities went on as vital signs monitoring was done at 2pm and 6pm and recorded per the appendix. Other and nursing actions observed during care at this period was recorded in the nurses' continuation notes. Suspension Amoxiclav 2.5ml was administered at 6pm to child.

Continuous monitoring was done throughout the period of care. Vital signs were checked and recorded at 10pm per appendix. Syrup paracetamol 5ml and syrup Vitamin C 5ml were administered. Child was adequately responding to treatment regimen.

FOURTH DAY OF ADMISSION (21st August,2023)

I met the family at 7am on this day. Per the report from the previous shift, child condition had improved. No new complain was made by the mother during routine assessment. Vital signs were checked and recorded at 6am per the appendix. His medications, Suspension Amoxiclav 2.5ml, Syrup paracetamol 5ml and syrup Vitamin C 5ml were administered by night nurses.

At 8:00am, the objective set to relieve mother from anxiety was evaluated. It was observed that set goal was successfully met as it was seen that mother taking active participation in child's care. Also, she demonstrated a cheerful facial expression.

At 8:15am, upon continuous interaction with mother it was noted that she has little knowledge on child's condition. To adequately educate mother and to further prevent future occurrence of condition in child, a nursing diagnosis was formulated for problem and an objective was set to educate mother within 24-hours. The following nursing activities were implemented to the achievement to set objective; Mother was asked to share what she knows about the condition. All misconceptions on condition were clarified. Mother was allowed to sit on a comfortable chair as education was given on the condition. This was successful as it made her felt comfortable and cooperative. A calm environment was created for teaching and learning by providing seats for mother, ensuring privacy and minimizing all forms of destructors. The family was educated on the causes, signs and symptoms, management, and prevention of bronchiolitis. Immediate seeking of medical attention was stresses when symptoms are observed. Procedure was documented in the nurse's notes for the continuity of care.

During routine ward round, medical officer ordered to continue treatment and monitoring. He tipped child for possible discharge the following day

Routine vital signs were checked and recorded at 10am and 2pm per appendix. Medications were administered on their due time. Food items were offered to child as his feeding pattern was observed. Child's general wellbeing had improved. All physiological parameters were in their normal ranges per his age. Monitoring continues

At 6pm and 10pm, routine vital signs were checked and recorded per appendix. Medications were administered on their due time. Monitoring continued b night nurses. Child was in good state at the night according to the report of that shift.

FIFTH DAY OF ADMISSION/ DAY OF DISCHARGE (22nd August 2023)

I reported to the ward at 7:00am to continue with the care. Per the report from the previous shift, child condition had improved and no complain was made by the mother during routine assessment. Vital signs were checked and recorded at 6am per the appendix. His medications, Suspension Amoxiclav 2.5ml, Syrup paracetamol 5ml and syrup Vitamin C 5ml were administered by night nurses. I performed a quick assessment on child and he was better.

At 8:15am, the objective set to educate mother on disease condition was evaluated. It was observed that goal was fully met as child's mother being able to provide correct answers to questions posed to her on questioning. Nurse also observed family practicing what was taught whiles on admission.

Medical officer reviewed child during routine ward rounds this morning. Upon assessment he was fit to be discharge home. Child was discharged to continue his oral medication in the house. He was scheduled for a review on 26th August, 2023

At 9:00am, before the family packed out of the ward, the objective set on 19th August, 2023 to conserve child's energy and further improve weakness was evaluated. It was observed that the set goal was fully met as evidence by nurse observed child actively partake in play on the ward. Mother also verbalized improvement in child's activity level

In addition at 10:15am, the objective to maintain an optimal nutritional status in child throughout the period of hospitalization was evaluated. It was observed that goal was fully met as child maintained his state of body mass index throughout the period. Also, mother verbalized child had gain adequate appetite to food.

Patient's mother was educated on how to administer the medication and the need to complete the medications given to her child. The need to report any observed sickness anytime was emphasized to prevent future complications. Terminal disinfection of bed and the linen was done to prevent cross infection to other patient and the bed was made ready to admit another patient. I helped the patient's mother pack the patient belongings into her bag and the review date (26th August,2023) was also made known to them and saw them off to the entrance and bid them goodbye.

4.2 Preparation of K.A.M. towards Discharge and rehabilitation

Preparation of family towards discharge started on the day of admission till the day of discharge. K.A. M's discharge commenced the day he was admitted into the facility, which is 18th

August,2023 and ended on the day he was discharged. The entire health team was involved in the preparation of K.A.M, and his family for discharge. Though the patient's mother and relatives were worried about his condition, they were reassured that his hospitalization was temporal, and he will be discharged when his condition improves. The patient's mother was educated on the patient's condition, its causes, signs and symptoms, treatment and complications, and preventable measures. The preparation enabled the family to understand the basic concept of health care when there was an illness. The mother was also educated on how to give him his drugs and the importance of taking his drugs and on time. The necessary information was documented in admission and discharged book in the Ward State document. Assessment of patient bills was made with the help of the National Health Insurance Scheme. Patient's belonging was packed. The bed was disinfected and made ready for possible admission. I accompanied them to the roadside where they took a taxi and bid them farewell.

4.3. Follow-Ups /Home Visit Care for K.A.M.

A home visit is a visit paid to the patient at his residence. The aim of the home visits is to promote and maintain the patient's health and monitor relapse in the patient's condition. It also ensures that the patient continues his or her treatment at home. It again enables the nurse to assess the real situation of the patient's home to assist in eliminating contributing factors to the patient's condition if any.

First Home Visit (19th August,2023)

While on admission, on 19th August 2023 at 12:30pm, I paid a visit to the house of K.A.M. and his family. The visit aimed to assess the real home situation to ensure continuity of care. I got to the house at 12:30pm and I was offered a seat by other members of the family. The house is a two-bedroom apartment built with blocks and roofed with aluminium sheets. Upon observation

of the environment, there was a full public waste bin in-front of the house and I was wide open. Also, there was a lot of people who were residents of the house and share a room with child and mother. The rooms were overcrowded with people and the environment was dusty. I educated them on the need to ensure proper ventilation in their room since there is overcrowding and to sprinkle water on the dusty sides of the house. I informed the family about my intention to leave. She bided me farewell and promised to abide by every advice given.

Second Home Visit (24th August,2023)

A second home visit was made on 24th August,2023, two days after patient was discharged from the hospital to find out the health status of patient after discharge and remind mother of the review date. I asked about child's health status and the mother confirmed the he was doing better. I then noticed that the public waste bin was emptied and covered with a lid. Dusty places have been sprinkled with water. I asked the mother questions based on the education I gave her while child was on admission and her responses were good. I inspected K.A. M's drugs and encouraged the mother to comply with the treatment plan and to report any side effects. I explained to child's mother about handing them over to a community nurse the next visit for continuation of care. They were reminded about the review date.

Review Date (26TH August,2023)

On 26th August,2023, child was brought for review and I met them at the Out-Patient Department of Sunyani Regional Hospital around 11:30am. Child looked well and cheerful. I accompanied them to go for patient's folder. Vital signs were checked and recorded as follow:

- Temperature - 36.3^{O}C
- Pulse - 99 beats per minute.

- Respiration - 34 cycles per minute.
- SPO2 – 99%

Upon the Doctor's examination, child was found to be healthy. No new complain was made by the mother. Patient's mother was asked to give patient balance diet, protect him from cold weather, smoke, and dust particles. Mother was also informed to wash hands with soap and water before feeding the patient. No medication was prescribed to child

Mother was reminded of my third visit which will be my last visit and to terminate care. They were seen off at the taxi rank.

Third Home Visit (30th August 2023)

I made a third visit together with the community health nurse from Kotokrom town. Her house was near K.A.M.'s house. Our mission was asked, and I informed K.A.M.'s mother about the termination of therapeutic care. I emphasized the need to maintain good personal and environmental hygiene and to always breastfeed him and give him complementary foods. There was an improvement in K.A.M.'s health. I encouraged the mother to report to the facility if the condition reoccurs for further management. I expressed my gratitude to Madam M.A. for her cooperation throughout her care. She also expressed her sincere gratitude to me and the health team that rendered care to her during the hospitalization. I handed K.A.M over to the community health nurse and thanked her very much for support. I sought permission and left.

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 paediatric ward, child fully recovered from his illness and was finally discharged home on the fifth day of admission with all goals fully met. During the period of hospitalization, six health problems were identified on child and family in which objectives were set to solve them.

Child's breathing pattern was restored to normal as per age

On admission, 18th August,2023 at 3:30pm, K.A.M. was observed experiencing difficulty breathing with Spo2 of 92%. An objective was set to help child maintain a normal breathing respirator rate within 24-hours. Adequate nursing interventions implemented on child for set objective to be met include; Mother was reassured on the pharmacologic and non-pharmacologic measures to control the breathing pattern of the child throughout the period of hospitalization. Respiratory stridor and any sign of difficulty in breathing was assess in child. Use of accessory muscles for inspiration and expiration was ascertained. Child was placed on mother's chest in the upright position. This helped to release respiratory distress. Any constrictive clothing around

child's neck and chest area were taken off to facilitate adequate chest expansion and breathing. SPO2 was checked continuously for the first 4hours with oxygen insitu. It was continued to monitor every 30minutes apart for 2hours, and hour interval for 2hours then every 4hours. Oxygen was administered to child at a rate of 2L/min. It was remained in situ till respiratory effort normalized and weaned off.

On 19th August,2023 at 3:30pm, objection set to relieve child from respiratory distress within 24 hours was evaluated. It was observed that child's oxygen saturation was 97% off oxygen therapy and respirator rate recorded 32 cycles per minute. Set goal was fully met.

Child's temperature reduced from 38.5°C to normal range (36.5°C)

At 4:00pm on admission (18th August,2023) it was observed that child was warm to touch. Child's temperature was checked and it recorded 38.5°C. Nursing objective was formulated to reduce K.A.M's body temperature to normal (36.2 - 37.2°C) within 24-hour period. Appropriate nursing interventions were carried out within this period. Evaluation made on objective at 19th August,2023 revealed full achievement of set objective as child's temperature consistently measured within a range of (36.2°C - 37.2°C) for 24 hours. Goal fully met.

Child's activity level improved and was relieved from weakness

At 9:00am on 19th August,2023, It was noticed that, child was weak and was reluctant to move bod whiles in bed. History of weakness was obtained and mother affirmed that it has been present for days. Objective was set to conserve energy in child and subsequent relieve child from weakness throughout the period of hospitalization. Appropriate nursing activities were rendered to achieve the set objective. Evaluation made on set objective on 22nd August,2023 revealed that,

child has gained enough strength and was playing with other children on admission. The set objective was fully met.

Child gained appetite for food and maintained optimal nutritional status

At 10:15am on 19th August,2023 it was obtained that child was feeding poorly. Food items were brought to child and very little proportion was consumed. Nursing objective was set to promote and maintain adequate nutritional intake within period of hospitalization. Various nursing interventions were carried out within the period of set objective. Set objective was evaluated on 22nd August,2023 as child was able to eat almost all food served. He maintained his body mass index throughout the period. Also, mother verbalized child had gain adequate appetite to food. The set objective was fully met.

Mother was relieved from anxiety

At 8:00am on 20th August,2023 it was observed that mother was anxious and did not know the outcome of child's condition. Also, child consumed very little of food served to him. Nursing objective was to calm the mother down as soon as possible. Various nursing interventions were carried out within the period of set objective to achieve the outcome. During the period of evaluation on 21st August,2023 it was revealed that, mother was calm and cooperating with the care. She verbalized relieve of anxiety as child was responding to treatment. The set objective was fully met

Mother had in-depth knowledge on bronchiolitis

At 8:15am on 21st August,2023 upon continuous interaction with mother it was noted that she has little knowledge on child's condition (bronchiolitis). To adequately educate mother and to

further prevent an future occurrence of condition in child, objective was set to assist her gain adequate knowledge on bronchiolitis and its prevention. Appropriate nursing actions were implemented within the period of objective set. At 22nd August,2023, during the period of evaluation, it was revealed that, she had adequate knowledge on bronchiolitis. This was evident as she was able to answer question relating to prevention of condition The set objective was fully met.

Amendment of Nursing Care Plan for a Particular or Unmet Outcome Criteria

Patient was presented with six problems during his period of hospitalisation such as dyspnoea, fever, poor appetite to food, mother was anxious among others. All the goals set for child and family were full achieved on the set dates. Hence there was no amendment of the care planned.

5.3 Termination of care (30th August, 2023)

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 30th of August 2023. 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 will 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. I finally thanked them for their cooperation and asked for their permission to leave.

CHAPTER SIX

SUMMARY AND CONCLUSION

6.1 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

K.A.M is 9 months old boy who was admitted to the paediatric ward for five days starting from 18th August to 22nd August 2023 with the diagnosis of bronchiolitis. On admission, vital signs measure temperature - 38.5^{o}C, pulse - 130 bpm, respiration - 50 cpm and oxygen saturation of 92%. During K.A.M's period of hospitalization, 6 health problems were identified on him and family namely; child experienced difficulty breathing (50 cycles per minute), Child had high body temperature of 38.5^{o}C, child was weak, mother complained of poor feeding, mother was anxious about the disease outcome, mother expressed very little knowledge about disease condition. Child was managed on the following medications;

- IV Rocephin 665mg daily x 24 hours
- Nebulize salbutamol 2.5mg start then 3 cycle x 24 hours
- IV paracetamol 110mg tid x 24 hours
- IV Dextrose in normal saline 500ml x 24 hours
- Norma saline nasal drop 2 drops in each nostril
- Syrup vitamin C 5ml bd x 5

On 22nd August 2023 during the routine ward rounds, K.A.M's was discharged and was scheduled to come for review on 26th August, 2023. He was discharged on syrup paracetamol 5ml tid x 5, suspension Amoxiclav 2.5ml bd x 7, normal saline nasal drop 2 drops in each nostril and vitamin c 2.5ml tid x 7. The family was educated on the causes and prevention of bronchiolitis. Also, education on personal and environmental hygiene was taught when we had an 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 Sunday 30th August, 2023 during the last home visit. Patient is now feeling better and healthy and has started schooling.

6.2 Conclusion

In conclusion, my choice of nursing K.A.M/ family has strengthened my knowledge on bronchiolitis. 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 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.

BIBLIOGRAPHY

Babu, D. B. (2016, 03 10). *slideshare(nursing process)*. Retrieved from slideshare.net: http://www.sliseshare.net

college, W. t. (2019, 10 01). *wcts.pressbook.pub*. Retrieved from wcts.pressbook.pub: http://www.wcts.pressbook.pub/nursingfundamentals/chapter/4-8-evaluation

dictionary, b. (2022, 06 16). *biologyOnline.com*. Retrieved from biologyOnline.com: www.biologyOnline.com

H.Waddington, C. (2022, 08 05). *biological development*. Retrieved from Britannica.com: http://www.Britannica.com

institute, N. c. (2022, 07 26). *cancer.gov(definition of laboratory tests)*. Retrieved from cancer.gov: http://www.cancer.gov>def>labo

Kennedy Diema Konlan, N. K. (2021, 05 24). *National Istitutes of Health(.gov)*. Retrieved from ncbi.nlm.nih.gov: http://www.ncbi.nlm.nih.gov

Maraqa, N. F. (2021, 05 17). *Medscape*. Retrieved from Medscape .com: http://www.emedicine.medscape.com

Matt, V. (2010). *Nursing Care Plan : Ultimate Guide and Database*. Retrieved from Nurseslabs.com: www.nurseslabs.com

Singh, D. L. (2022, 08 11). *university of lucknow*. Retrieved from udrc.lkouniv.ac.in: http://udrc.lkouniv.ac.in

Tony-Butler, T. J., & Thayer, j. M. (2022, 04 14). *Nursing Process-StatPearls*. Retrieved from ncbi.nlm.nih.gov: http://wwwncbi.nlm.nih.gov

Weller, F. (2019). *Biallere's nurses dictionary.* china: tindall baillere.

Weller, F. (2019). *Biallere's nurses dictionary.* china: tindall baillere.

writters, R. n. (2022, 08 29). *Registered nursing .org (integrated processes or nursing process)*. Retrieved from registered nursing .org: http://www.registered nursing .org

APPENDIX

Table 7. Child's vital signs

Date	Time	Temperature (℃)	Pulse (bpm)	Respiration (cpm)	Spo2 (%)
18/8/23	3:30pm	38.5	130	50	92
	6pm	37.6	110	40	97
	10pm	37.0	125	38	98
19/8/23	6am	36.9	132	32	97
	10am	37.4	109	34	99
	2pm	36.5	107	37	97
	6pm	37.0	120	36	99
	10pm	36.9	110	35	98
20/8/23	6am	36.4	127	33	96
	10am	36.5	116	36	98
	2pm	36.4	122	29	98
	6pm	36.6	118	36	99
	10pm	36.9	120	37	98
21/08/23	6am	36.3	127	36	99
	10am	36.1	116	37	98
	2pm	36.4	129	33	98
	6pm	36.4	119	35	99
	10pm	36.5	121	39	97
22/8/23	6am	36.4	129	39	98
	10am	36.5	119	35	99

SIGNATORIES

THE STUDENT NURSE

NAME: AGYEI FRANCISCA ATAA

SIGNATURE: .....

DATE: 7th June, 2024

THE SUPERVISOR, HOLY FAMILY NMTC, BEREKUM

NAME: MS. RITA AGYEI BOAKYE

SIGNATURE: .....

DATE: 08-06-24

THE NURSE IN-CHARGE, PEDIATRIC WARD (SUNYANI REGIONAL HOSPITAL)

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