HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE

BEREKUM.

A CLIENT/FAMILY CENTERED NURSING CARE STUDY ON

SEVERE MALARIA

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

AUGUST, 2023

PREFACE

The nursing profession has developed throughout history seeing a lot of transformation in practice, type of caregivers, role and policy. Nursing has become a profession of caring and service to those in need, promoting the health of individuals, their families and the entire community. The patient/family care study is a detailed account of nursing care rendered to the patient and family to meet their needs. The study is designed to give a comprehensive nursing care to both patient and family from the time of admission till when patient is finally discharged, as well as follow-ups/home visits for continuity of care. The study provides a systematic way of collecting data, analyzing information, and reporting the results of nursing care. This patient/family care study is based on holistic care, taking into account all factors impacting the health of the patient.

The patient/family care study forms an integral part of the curriculum for educating nursing students hence a necessity for completing the nursing course and also a partial fulfillment of the requirement for the award of professional license by the Nursing and Midwifery Council of Ghana. Using the nursing process in caring for a patient, emphasis is placed on health promotion and maintenance, restoration of health and enhancing a peaceful death depending on the patient's condition. The nursing process is a series of organized steps designed for nurses to provide excellent care. This involves five phases, including assessing patient/family, making a diagnosis for patient/family, planning, implementing and evaluating nursing care. The nursing process offers a framework for thinking. The nursing process usually uses the NANDA taxonomy. The study is carried out to enable the student nurse put into practice the knowledge and skills acquired from the training period in school to ascertain how best the theoretical knowledge would be used to nurse patients who will come under his or her care in the near future. Initials were used instead of full name to maintain confidentiality and anonymity. The study serves as a reference paper for other student nurses and qualified health personnel who may be interested in its content.

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I would like to extend wholeheartedly my gratitude and praise to the ever loving and merciful God for touching and bringing those people who literally shared their abundant resources, talents, skills, time and effort for the completion of the study.

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This care study would not have been successful without the directions and constructive criticisms of my supervisor, Mrs. Rita Gyamfi who equipped me with the knowledge and guidelines whilst writing this care study and all the tutors of Holy Family Nursing and Midwifery Training College, Berekum, especially Mr. Alhassah Ibrahim for their support and the pieces of advice they gave me throughout this study.

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Finally, I am grateful to my family, my classmates and authors and publishers whose books have been used and those who have contributed in diverse ways to make the writing of my care study, a successful one, I say God bless you all.

INTRODUCTION

This comprehensive study was carried out on Miss J.D. a 17 year old girl, who was admitted to the female medical ward of Municipal hospital with the diagnosis of malaria on the 29th November, 2022. Client and relative were welcomed into the ward and taken through the admission process. I convened with her on the very day of admission. On admission, she presented with general body pains, fever and looked weak. Patient and relatives were reassured of competent nursing care. She spent four days at the hospital. Throughout her stay in the hospital, treatment and care was rendered to her and patient responded to interventions and was discharged on 2nd December, 2022.

The following were the diagnostic investigations that were carried on Miss J.D.

1. Urine R/E

2. Full Blood Count

3. B/F for malaria parasite

Also the following medications were given to Miss J.D.

1. Artesunate injection, 120mg for 24hours

2. Intravenous paracetamol 1g tds for 24hours

3. Artemether + Lumefantrine Tablet, 80/480mg for 3days.

4. Tablet Paracetamol 1g tid for 5days

5. Folic acid 5mg daily for 14days

6. Syrup Zincofer 5mls for 30days

With proper care and attention, she got well and was discharged on 2nd December, 2022 without any complication. I made three follow up visits after discharge and maintained the relationship between client and family until I eventually handed over to her mother in the client's home for continuity of care.

The study is presented in six chapters which is in line with the nursing process.

Chapter one dealt with the assessment of patient and family. It includes patient's particulars, family medical and socio-economic history, lifestyle and hobbies, past and present medical history, admission of patient, patient concept of illness, literature review as well as data validation

Chapter two dealt with the analysis of data collected about patient and comparing this data with standards. It also involves identification of patients and family strength, their health problems and formulating diagnosis for them.

The chapter three concerns the planning of care for the patient and family where nursing care plan is drawn from the problems and used in the management of the patient.

In the chapter four, nursing interventions of the care plan were implemented. It entails giving the summary of the actual nursing care plan, preparation of patient and family for discharge and rehabilitation, follow up and home visit and continuity of care.

Chapter five concerns about evaluation and amendment of nursing care, thus assessing to check for fully or partially met or unmet outcome criteria and termination of care.

The final chapter gives the summary and conclusion of the care rendered to patient, followed by bibliography, reference and appendix.

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CHAPTER ONE

THE ASSESSMENT OF PATIENT AND FAMILY

1.0 Introduction

This is the initial phase of the nursing process. Assessment is the gathering of information about the patient's health status, analysis and synthesis of the data and the making of a clinical nursing judgment (Weller, 2014).

It can be done through observations, physical examination, interviewing and investigation such as laboratory results. It includes the patient particulars, patient/family medical history, socio-economic history, patient developmental history, patient's obstetric history, patient's lifestyle/hobbies, patient's past and present medical/surgical history, admission of patient, patient/family concept of illness, literature review on malaria and validation of data. All information was gathered from patient and her relatives and information on the Hospital Administration Management System (HAMS).

1.1 Patient's Particulars

Patient refers to an individual under medical care and treatment (Merriam-Webster, 2022). Particulars is defined as an individual fact or details regarding information (MerriamWebster, 2022). Patient particulars give detailed information about the patient including his/her name, age, hometown, date of birth, nationality, religion, etc.

Miss J.D. is a 17-year old girl born on the 11th of September, 2005 at Dormaa Kyeremasu Hospital. She is dark in complexion; she weighs 49kg and a height of 1.4m tall. Miss J.D. is a National Health Insurance (NHIS) beneficiary. She comes from Sunyani Penkuase in the Bono Region, with the house number PE1005. Mr. D.D and Madam E.P are her parents. They are living in a compound house painted in violet. J.D. is the second born of her parents and has three (3) siblings and they are J.D, J.D, J.D.

J.D is a Christian and attends House of Power Ministry. J.D speaks Twi and English and a first year general arts student at Twene Amanfo Senior Technical School, Sunyani.

1.2 Patient's/Family Medical History

Health history is a holistic assessment of all factors affecting a patient's health status, it is designed to assess the effects of health care deviations on the patient and family, to evaluate teaching needs, and to serve as the basis of an individualized plan for addressing wellness (Miller-Keane, 2020).

According to Miss J.D. she said there are no known chronic or familial diseases such as hypertension, asthma, diabetes, epilepsy and leprosy in the family. She and the family sometimes get minor ailments like headache, menstrual cramps and fever of which they patronize drugs from the pharmacy for treatment. As a student nurse I educated them to desist from buying unprescribed drugs and encouraged them to always visit the nearby hospital when they are not feeling well. Patient said this is her second time of suffering from malaria. She said about ten (10) months ago she was diagnosed of malaria at the Municipal Hospital Sunyani. Their source of medical care financing was National Health Insurance Scheme (NHIS) which they use any time they report to hospital. Her parents and siblings are all in good health condition. There are no known allergies in the family.

1.3 Patient/Family Socio-Economic History

Miss J.Dś parents belong to the middle class income group. The father is a taxi driver and the mother helps the family in house chores. Miss J.D. depends fully on her parents for financial support. Family members are known to be kind and supportive in times of hardship. According to the mother, most of the family members are Christian's whiles others believe in taboos, myths and respect people from other religion. Also the family is well respected in the area in which they find themselves. Miss J.D. usually attends Sunday church service and go for practice in playing drums in the evening. The mother stated that the source of medical financing in the family is the national health insurance scheme (NHIS).

1.4 Patient's Developmental History

Development is the process of growth and differentiation which involves cognitive, psychosexual and psychosocial processes (Weller, 2014). Growth is the progressive development

of a living thing, especially the process where by the body reaches its complete physical development (Weller, 2014). Maturation refers to the process of ageing (Weller, 2014).

The patient developmental history was provided by the mother. Miss J.D.'s mother mentioned that she had a normal nine-month pregnancy with no pregnancy related problems and had a spontaneous vaginal delivery at Dormaa Kyeremasu hospital, Dormaa without any deformity. She was immunized against childhood vaccine-preventable disease, as established by Bacillus Calmette Guerin (BCG) scar on her right upper arm. Miss J.D was breastfed for four (4) months before she started eating supplementary foods. She started crawling at the 6th months, walking at age one and started talking at age three(3).Miss J.D. experienced secondary sexual characteristics such as development of breast, growing of pubic hair around age thirteen(13) and had her menarch around that same age. She is a now a student of Twene Amanfo Senior Technical School, Sunyani. She is in general art class studying economics, twi, government and geography as her elective subjects. From my patient, she has no difficulties in studies in her education. Miss J.D. said has never engaged herself in sexual activities and have remained virgin from birth up to now. When asked about her goals and intentions for the future, the patient

stated that she wants to become a nurse in the near future. She also said that she has a regular menstrual cycle and that she usually gets her menses every twenty- eight days. She usually menstruates for four (4) days with mild pains in the lower abdomen.

Erick Erikson (1902-1994) focused on the role of cultural and socio-economic influences in behaviour. Erikson was concerned with the development of ego, the concious, organised and logical aspect of the personality. He explained eight stages of ego development from birth to death. Each stage is marked by a specific conflict, crisis, pertaining to individual's biological and, which will maturity and what society aspects of a person at that age. In respect to miss J.D, she is now in her adolescence age group, where there is conflict between identity and role confusion (12 to 18 years). This stage is critical in developing a sense of personal identity, which will continue to influence behaviour and development for the rest of a person's life. Teenagers must develop a feeling of self-individuality. Failure leads to role confusion and a weakened sense of self. I am certain that miss J.D. has formed successful socialites' which places her in Erikson's identity dimension of psychosocial development.

1.5 Patient's Obstetric History

Obstetrics is a branch of medical science that deals with pregnancy, childbirth, and the postpartum period (Merriam-Webster,2023). According to miss J.D, she had her menarch around the age of thirteen. She revealed that she has never had sexual intercourse from birth to now and she is not ready to get into any relationship. She also said that she has a regular menstrual cycle and that she usually gets her menses every twenty- eight days. She usually menstruates for four (4) days with mild pains in the lower abdomen.

1.6 Patient's Lifestyle and Hobbies Patient's Obstetric History

Life style is defined as the typical life of an individual or group (Merriam-Webster, 2022). Miss J.D usually goes to bed around 10pm. She wakes up in the morning around 5am and maintains her oral hygiene with the use of tooth brush and tooth paste. She then empties her bowel, takes her bath with tepid water and dress up to school. According to miss J.D she sometimes takes in hot tea with bread as breakfast before she leaves for school. She said, she normally takes her breakfast around 10am in school and continue studies afterwards. She takes her supper around 1pm. Her favourite meal is rice with cabbage stew and boiled egg. She normally does her assignment in the evening at 8pm. After school she helps her mother in house chores as she is the only female amongst her siblings. She takes her supper around 6pm and takes her bath. She then learn what he has been taught in school before the next day. She dislikes someone who gossip and does not respect the elderly. Miss J.D is interested in playing musical instruments in church. She nomally washes her dirty clothes on Saturdays. She goes for jogging with her elder brother early in the morning before laundry starts. On Sundays, she prepares for church in the morning. She closes from church around 1pm and takes her lunch. She then returns to church for rehearsals. Afterwards, she prepares for upcoming week by ironing her school uniform together with her siblings.

1.7 Patient's Past Medical History

Past medical history is a record of past medical problems and treatments that a person has had (Merriam-Webster, 2022). According to miss J.D, she did not experience any childhood illness

like measles, tuberculosis, poliomyelitis, tetanus and has no allergy to drugs. She said she usually suffers from minor ailments like headache and common cold which she treats with over- the-counter medications. Miss J.D said she has not had any accident or injuries. She does not go for medical check-up. She is a registered member of the National Health Insurance Scheme and have easy access to health care whenever she attends hospital. She has been hospitalized once on account of malaria.

1.8 Patients Present Medical History

The history of the present illness or problem includes such information as the date and manner (sudden or gradual) in which the problem occurred, the setting in which the problem occurred, and the course of the illness including self treatment, specific symptoms are also described in detail (Hinkle & Cheever, 2014).

According to Miss J.D's mother, on the 29th of November, 2022 patient was able to go to school but upon returning she started experiencing fever and chills, bitterness in the mouth, weakness of body and headache .Patient fell asleep until around 6:20pm where her mother saw that symptoms were worsening and she took her to the Municipal Hospital Sunyani for treatment.

Around 7:00pm patient was at the accident and emergency unit and detained for few hours. Upon investigations, patient was diagnosed of severe malaria by Dr. R.U and was transferred to the female medical ward on the same day.

1.9 Admission of Patient

Admission is the act or process of accepting someone into a hospital, clinic or other treatment facility as an inpatient (Merriam –Webster, 2023). Miss J.D was trans into the female's medical ward from the accident and emergency unit on 29th November, 2022 at 8:13pm accompanied by a staff nurse and the mother with diagnosis of severe malaria. Patient was welcomed and made comfortable at the Nurses station. Patient was weak but conscious and had high body temperature. Being at nurses' station with the shift in charge at time of patient's arrival, I was charged to carry out her admission to the ward. I introduced myself and reassured her to allay fear and anxiety. She was introduced to the staff nurses and colleagues on duty and other patients at the ward. I collected her hospital card and confirmed her identity by mentioning her name on

the folder of which she responded. The patient was immediately received into an already prepared simple unoccupied bed. All necessary information such as client particulars (name, sex, age, house address) were recorded in the admission and discharge book, as well as the daily ward state. Vital signs were checked and recorded accurately as follows;

Temperature 38.2℃

Pulse 99bpm

Respiration 24cpm

Blood Pressure 90/60mmHg

Her weight was 49kg.

Physical examination was performed on patient from head to toe. At time of admission, assessment revealed that patient had high body temperature, general body weakness and warm to touch.

Due to high body temperature, she was asked to remove extra clothing, she was given cold drink and prescribed Intravenous Paracetamol 1g was set up.

Patient was reassured to put her thoughts and anxieties to rest. The hospital policies on visiting hours and bill payment were discussed. Patient's mother was given a thorough orientation to the ward and its annex and hospital routine. Ward rounds were explained to them. All valuables were kept in her locker. She is a registered national health insurance scheme member so I made her understand the policy was going to take most of her bills.

She was managed on the following medications;

1. Intravenous Paracetamol 1g tds 24hrs

2. Injection Artesunate 60mg/120mg tds for 3days

3. Tablet paracetamol 1g tds for 5days

4. Folic acid 5mg once daily for 14days

5. Syrup Zincofer 5mls once daily for 30days

6. Tablet Artemether +Lumefantrine, 80/480mg bd for 3days

The following diagnostic investigations were done at the ER

1. Malaria RDT

2. B/F for Malaria Parasites

And these were done whiles patient was at the female's medical ward

3. Full Blood Count

4. Urine R/E

I introduced myself to the patient as a final year nursing student at Holy Family Nursing and Midwifery Training College, Berekum who want to take her and her family for my care study. Miss J.D and her mother were told that the care study is a requirement for the award of a Diploma in Registered General Nursing by the Nursing and Midwifery Council of Ghana. I asked for permission to use her and her family for the study and they agreed. I explained to them in simple language what it will entail and promised to make information gathered confidential. I made it clear to patient that other health workers will play their role in the care of miss J.D. Patient/Family care study is to enable me render to her individualized comprehensive nursing care until discharged. A brief education about the diseases condition was given. I told them that I will go for at least three home visits before and after discharge. Patient was very happy and agreed to my request. . I decided to use the client for my care study because I wanted to know much detailed information concerning malaria and to gain more knowledge.

1.10 Patient's/Family Concept of Her Illness

After explaining to patient that she had been diagnosed of severe malaria, she believed that the illness was as a result of a bite by a mosquito which she knows breeds in stagnant waters. Patient therefore attributed the cause of her illness to mosquito bite and not spiritual cause. She expressed the hope that her condition would improve with her prayers, the treatment regimen and competent nursing care.

1.11 Literature Review

This section deals with documented information about Miss J.D diagnoses that is severe malaria. Literature review of a condition gives a detailed insight into the condition. It talks about the established and laid down facts about the disease condition, which aids in the medical and nursing diagnoses and the appropriate management for that particular diseases. It comprises of the following:

1. Definition
2. Incidence
3. Aetiology/Causes
4. Types
5. Pathophysiology
6. Clinical features
7. Diagnostic investigations
8. Medical management
9. Nursing management
10. Prevention
11. Complication

Definition Of Malaria

According to Merriam-Webster, (2023), malaria is a human disease that is caused sporozoan parasites(genus Plasmodium) in the red blood cells, transmitted by the bite of anopheline mosquitoes, and is characterized by periodic attacks of chills and fever. From other definitions, Malaria parasites are transmitted or spread to people through the bites of infected female Anopheles mosquitoes, called “malaria vectors” (Parry, Godfrey, Mabey, & Gill, 2016). Malaria is an acute or chronic disease caused by the presence of sporozoan parasites of the genus Plasmodium in the red blood cells, transmitted from an infected individual to an uninfected individual by the bite of anopheles mosquitoes. It is characterized by periodic attacks of chills and fever, headache, diarrhoea, Nausea and vomiting. It can be described as uncomplicated or severe depending on the patient’s immunity level, specific of parasite and the presence of any other disease, such as malnutrition and anaemia. The right dose and medications can treat malaria and clear the infection from your body.

Incidence

There were 234 million cases of malaria recorded globally. Malaria incidence among populations at risk fell by 25% globally between 2012 and 2018.(World Malaria Report, 2018) . There are approximately 200million to 500million new cases each year in the world, and it has direct cause of 1million to 2.5million deaths per year. In 2021, there were estimated 247million cases of malaria worldwide and number of malaria deaths were estimated as 619000 compared to 62500 in 2020. Children under five accounted for about 80% of all malaria deaths in the African Region. Malaria is hyper-endemic in Ghana and mostly responsible for most deaths. It accounts for 27.5% of deaths and is prevalent among pregnant women and children under 5 years (Ghana Health Service, GHS, 2015).

Forms of malaria

Malaria can be severe or uncomplicated

Severe Malaria: It is most often caused by the most dangerous parasite thus, Plasmodium falciparum and symptoms must be treated immediately. Patient may show symptoms like; anemia, coma, confusion, focal neurologic signs and respiratory difficulties.

Uncomplicated malaria is characterized by fever, chills, headaches, muscle pains, nausea and vomiting.

Types of Malaria Parasites

Five species of Plasmodium (single-celled parasite) can infect humans and cause illness

1. Plasmodium falciparum
2. Plasmodium malariae
3. Plasmodium vivax
4. Plasmodium ovale
5. Plasmodium knowlesi

Aetiology

Malaria is mainly caused by a protozoan parasite known as the genus plasmodium

which is found in the female anopheles' mosquito. People who are infected with P. falciparum parasite are at higher risk of death. (Stanford Medicine,2022)

Mode of transmission

There are 2 main anopheles mosquito species which spread malaria in Ghana. They are anopheles gambiae and anopheles funestus. Transmission is greatest after the rains when more

water bodies like those in pot holes, ponds, and others are seen around. Everybody in Ghana can get malaria but it affects children under 5 years of age and pregnant women more.

An infected mother can pass the disease to her baby at birth and its known an congenital malaria. Malaria is also transmitted through; an organ transplant, blood transfusion, use of infected needles.(Allotey,2013)

Life Cycle of A Mosquito

According to Allotey (2013), mosquitoes have 4 different stages in their life cycle namely Egg, Larve, Pupa, and Adult. Average life spans 3-4 weeks. Mostly lay up to 3 batches (100-150 batches). Rarely up to 7 batches. They have different breeding habitat preferences. The lay eggs one at a time directly on water. Eggs are hatched within 2-3 days. Larvae development takes 4-10 days but temperature dependent. Pupae stage takes 2-3 days and also temperature dependent.

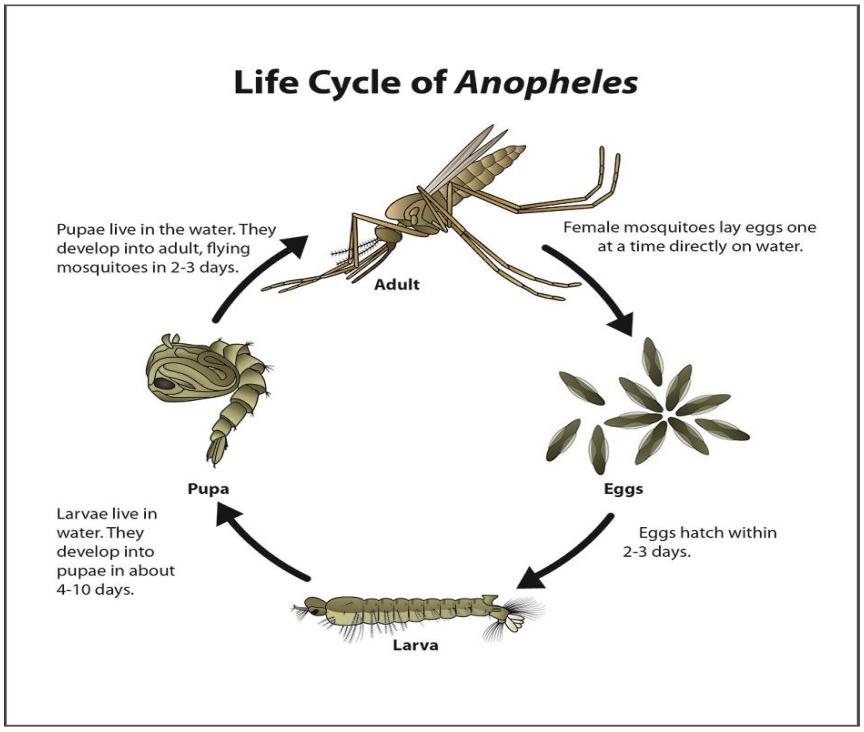

Figure 1: Life cycle of Female Anopheles Mosquito

Egg

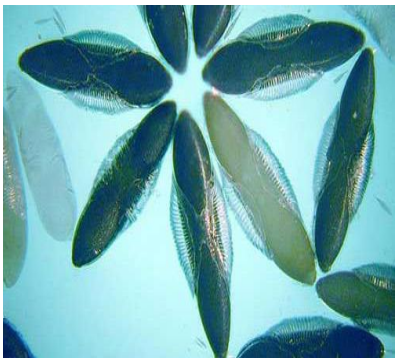

Figure 2: Showing Egg of Mosquito

Adult, female mosquitoes lay eggs one at a time directly on water. The eggs float on the surface of the water. Adult, female mosquitoes lay 50–200 eggs at a time. Eggs do not tolerate drying out.

Larvae

Figure 3: Showing Larvae of Mosquito

Larvae live in the water. They hatch from mosquito eggs. Anopheles larvae breath by using special organs (called spiracles) located on their abdomen. Larvae shed their skin (molt) four times during this stage before becoming pupae.

Pupa

Figure 4: Showing Pupa of Mosquito

Anopheles mosquito pupa.

Pupae live in the water. Pupae do not have external mouthparts, so they do not eat during this stage.

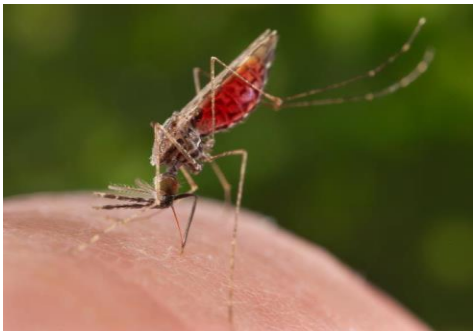

Figure 4: Showing Adult Mosquito

An adult mosquito emerges from a pupa and flies away. Adult female mosquitoes bite people and animals. Female anopheles mosquitoes need blood to produce eggs.

Adult female Anopheles mosquitoes prefer to feed on people or animals, such as cattle. Some Anopheles male mosquitoes fly in large swarms, usually around dusk, and the females fly in the swarms to mate.

After blood feeding, the female mosquitoes rest for a few days while the blood digests and the eggs develop. After the eggs develop, the female lays them in the water sources.

Anopheles mosquitoes generally don't fly more than a 1.2 miles (2 km) from their larval habitats.Anopheles mosquitoes are attracted to dark, sheltered areas for resting during the daytime.

Risk Factors

People at increased risk include; young children and infants, older adults, travellers coming from areas with no malaria, pregnant women and their unborn children. Also those living in areas where the disease is common are at risk of developing malaria. Such areas include Subtropical and the Tropical regions of; Sub-Saharan Africa, South and South-East Asia, Pacific Island.

Predisposing Factors That May Cause Malaria Are:

1. Poor refuse disposal
2. Poor drainage disposal
3. Empty tin or cans lying around can collect water and breeds mosquitoes.
4. Bushy environment which can serves as a breeding ground for mosquitoes

Pathophysiology of Malaria (centres for disease control and prevention, 2019).

Asexual Development in man:

An infected female Anopheles mosquito injects sporozoites into the new human host during blood meal. The sporozoites injected into the bloodstream leave the blood vascular system within 30 to 40 minutes and enter the liver. This begins the exo- erythrocytic stage of the life cycle during which asexual multiplication occurs. Within hepatocytes the sporozoites undergo many nuclear divisions to become schizonts. This occurs over a period of 6-15 days, after which schizonts burst and release thousands of merozoite into the circulation. Upon release, the merozoites invade the red blood cell where they undergo another asexual cycle called erythrocytic schizogony. During this stage the merozoites develop to form immature or ring stage trophozoites. The mature trophozoite develops into schizonts. The erythrocytic cycle result in the formation of 4- 36 new parasite in each infected cell within a 44- 72 hours period. At the end of the cycle, the infected red blood cell burst releasing the merozoites. At this stage, merozoite can either infects new red blood cell to begin the erythrocytic cycle again or through the action of some unknown factor, the merozoite can develop into gametocytes. It is of note that blood stage parasite responsible for the clinical symptoms of malaria. For example, lysis of red blood cell is an important cause of malaria – associated anaemia. In addition, if a significant

number of infected cells rupture simultaneously the resulting material in the bloodstream is thought to induce a malarial paroxysm (Centers for Disease Control and Prevention., 2019).

Sexual Development in Mosquito:

When a female Anopheles mosquito takes a blood meal from an infected person, both microgametocytes (male) and macrogametocytes (female) may be ingested. The male and female mature to become microgametes and macrogametes respectively. In the midgut of the mosquito, the microgametes fertilize the macrogametes forming a zygote. The zygote become elongated and motile and is then called ookinete. The ookinete invade the midgut wall of the mosquito where the develop into oocytes. The oocytes grow and develop and finally rupture to release sporozoites. The sporozoites make their way to the salivary glands of the mosquito so that they can be inoculated into the new human host during the mosquito's next blood meal thus perpetuating the plasmodium life cycle (Centers for Disease Control and Prevention., 2019)

Clinical Symptoms Of Severe malaria

According to Division of parasitic Diseases and malaria (2019), in most African settings severe malaria is predominately a disease of childhood, in the areas of unstable endemicity all ages may be affected and even in endemic area a small proportion of patient present with severe malaria. Therefore, there is no specific definition for severe malaria due to the fact that the diagnoses are made based on the clinical manifestations and the diagnostic investigations. In many settings not all desired investigations will be available.

According to Division of parasitic Diseases and malaria (2019), a feature of severe malaria in children which gives an indication for admission to hospital includes:

1. Diarrhoea

2. Pulmonary oedema

3. Fatigue

4. Nausea and vomiting

5. Coma (GCS≤ 11 or Blantyre coma scale <3)

6. Confusion or agitation (with Glasgow coma [GCS] ≥11)

7. Fever and chills ≤37.5℃

8. Chest or abdominal pain

9. Headache

10. Loss of appetite

11. Anemia

12. Muscle or joint pain

13. Rapid breathing

14. Insomia

15. Rapid heart beat.

16. Body discomfort

Diagnostic Investigations

1. History and clinical signs and symptoms manifested by the patient.

2. B/F for malaria parasite

3. Full blood count (FBC).This check for anemia or evidence of other possible infections.

4. Polymerase chain reaction (PCR).This detects the parasite nucleic acids and identifies the species of malaria parasite

4. Lumber puncture. This is performed to exclude alternative or additional specifically treatable conditions such as H. simplex encephalitis and cryptococcal, tuberculosis and bacterial meningitis.

5. Erythrocytes sedimentation rate (ESR). This detects any inflammation associated with conditions such as infections, cancers and autoimmune condition.

6. Blood culture to rule out septicaemia and other diagnoses.

7. Serological assays. This also detects anti- malarial antibodies but cannot determine whether the antibodies result from current or past infection.

Medical Treatment

1. Antimalarial Drugs

(A) Artemisinin-based combination therapies (ACTs):

The drug of choice for the treatment of uncomplicated malaria is the combination of Artesunate-

Amodiaquine tablets in Ghana. Arthemeter- Lumefantrine and Dihydroartemisinin- Piperaquine are additional ACTs that are recommended for patients who cannot tolerate the Artesunate Amodiaquine.

1. Quinine: Child dose: 10mg quinine per kg body weight 8hourly for 7days

Adult (=60kg) dose: 600mg quinine per body weight 8hourly for 7days (Drug Policy for Ghana is IV or IM Quinine.(John P.Cunha,2023)

2**. Intravenous (IV) Artesunate 2.4mg per kg**: Artesunate 2.4 mg/kg body weight is administered intravenously (IV) or intramuscularly (IM) at the time of admission, thus from 0 hour, 12 hours and 24 hours then once till the patient is able to take oral medication.(John P. Cunha,2023)

3. **Quinine dihydrochloride 20 mg salt/kg body weight** on admission, then 10 mg/kg body weight every 8 hours on admission before switched to tablets (WHO, 2019).

5. Intramuscular (IM) Artemether 3.2mg per kg on admission then 1.6mg per body weight per day.

6. Tablet Artemether +Lumefantrine, 35kg or greater : Administer 24tablets over 3days;use 3day treatment schedule with total of 6 doses (WebMD,2023)

2. Analgesics and Antipyretics

a) Paracetamol

Paracetamol is recommended part of supportive care for malaria, especially in children. Paracetamol in tablet, syrup or suppository forms may be given every 4 – 6 hours until the temperature is normal (Ghana Health Service, 2014).

3. Management of Anemia

Many people develop anemia from severe malaria. Many children with haemoglobin

Concentration between 4 and 6g/dl, without signs of severe malaria do well with oral anti malaria and haematinics. In severe cases blood transfusion is recommended.

a) Heamatinics (Vitamins); tablet folic acids and syrup zincofer (World Health Organization,2015). Multivites and Vitamin B complex is given to correct anemia.

4. Oxygen Therapy

Oxygen is given to counter tissue anoxia in patients experiencing breathlessness. (Parry, et al, 2016).

5. Intravenous Infusion

Dextrose saline and Dextrose 5% and 10% are given to expand blood volume and improve nutrients. In case of electrolyte loss, normal saline is given. For dehydration prevention, drinking of fluid and or breastfeeding is encouraged by giving Oral Rehydration Salt (Allotey, 2013).

Nursing Management

According to Cheever & Hinkle, (2014), the nursing management can be put under the following headings;

A) Reassurance:

1. Patient must be reassured that; she is in the hands of competent health workers who are willing to take care of her.

2. Patient must be educated about her condition and questions must be welcomed which must be answered generously.

3. Patient must be introduced to other patient who have had the same condition but have recovered with permission from them. All these are done to allay fears and anxiety of patient and for the patient to have confidence in the staff.

B) Rest and Sleep

1. Patient is nursed on a comfortable bed, free from creases and cramps

2. Nurse patient in a serene environment

3. Nurse patient in a well-ventilated room to ensure good rest.

4. Restrict the number and frequency of visitors visiting patient

C) Position

1. Patient is nursed on a comfortable bed, free from creases and cramps.

2. Encourage patient to assume position that best relieves pain.

D) Observation

1. Constantly monitor the vital signs (temperature, pulse and respiration).

2. Observe for possible onset of complications of malaria especially convulsion.

3. Observe for rise in temperature and if any and tepid sponge.

4. Institute and monitor fluid intake and output and observe for dehydration or fluid overload.

5. Observe vomitus for amount, color, odor and possible blood.

6. Observe for possible neurological signs of quinine toxicity such as; twitching, delirium.

7. Monitor side effects and therapeutic effects of drugs.

8. Observe skin and mucous membranes for jaundice.

E) Medication

1. Serve prescribed anti-malaria drugs as well as antipyretics.

2. Administer prescribed intravenous fluid.

3. Monitor for side effects and therapeutic effects of medications.

F) Maintain Adequate Nutrition

1. Patient must be encouraged to take in fruits and fluids diet to thin secretions and facilitate breathing.

2. Patient should be allowed to eat the food of her choice but dietary management should be planned with the patient.

3. Serve well balanced diet rich in calories, vitamins, protein and mineral salts to build patient's immune system.

4. Foods rich in protein such as fish and eggs must be encouraged to repair worn out tissues.

5. Serve diet in bits and attractively.

G) Personal Hygiene

1. Explain the relevance of personal hygiene to the patient and relatives

2. Educate the patient on the need to bath at least twice daily

3. Assist the client to trim his/her nails and also care for hair of the patient.

4. Ensure oral hygiene is done twice daily

5. Educate the patient on washing the hands after visiting toilet, before and after eating.

Monitoring

1. Monitor breathing

2. Monitor vital signs every 4 hours

3. Monitor patient for complications

4. Record and observe urine output

5. Monitor for retinal whitening, vascular changes or haemorrhages

6. Monitor for hypoglycemia

7. Monitor the therapeutic response to medication

Exercise

1. Engage patient in passive exercise as condition permits to improve circulation.

2. Breathing exercises can be done to loosen and mobilize secretions

Prevention of Malaria

Preventive care refers to measures taken to prevent diseases instead of curing or treating the symptoms. The three levels of preventive care are primary secondary and tertiary care (WHO, 2009).

Goals of Prevention

1. Prevention of infection.

2. Reduced increase in body temperature.

3. Improved tissue perfusion.

4. Improved fluid volume of the body.

5. Gained and retained information on malarial disease process, treatment, and prognosis

Primary Prevention

1. Apply mosquito repellent with DEET (diethyltoluamide) to exposed skin.

2. Drape mosquito netting over beds.

3. Put screens on windows and doors.

4. Treat clothing, mosquito nets, tents, sleeping bags and other fabrics with an insect repellent called permethrin.

5. Wear long sleeves to cover the skin.

6. Avoid chocked gutters.

7. Proper means for storing and disposing refuse.

8. Regular spraying of breeding places of mosquitoes.

9. Sleep under treated mosquito net.

10. Draining of stagnant water

Secondary Prevention:

1**.** Keeping systematic surveillance to detect and report cases quickly and respond with effective treatment.

2. Early diagnosis should be based on blood film examination for the parasites in both thick and thin films (microscopy).

3. In cases where outpatient attendance is very high and laboratory staff

Strength is low or weak or when the laboratory services are not available, such as at night, Rapid

Diagnostic Test (RDTs) may be used to minimize waiting time, notwithstanding this, malaria in all patients must be confirmed with blood film examination (Kaushansky,et al., 2016).

4. Infected individuals can also be identified even before symptoms develop in systematic screening program in order to identify those at risk of developing malaria and those who are already infected.

Tertiary prevention:

Reduction of death and disability from severe malaria is public health priority for Ghana and can be achieved by prompt provision of:

1. Parenteral anti-malaria medication (Intramuscular or Intravenous).

2. Appropriate supportive care throughout the period of illness.

3.In cases where referral is needed, health workers should be able to provide urgent and appropriate pre-referral treatment and refer.

4. Ensuring quality school health services

Complications

Malaria can be fatal, particularly when caused by the plasmodium species common in Africa. The World Health Organization estimates that about 94% of all malaria deaths occur in Africa — most commonly in children under the age of 5. Malaria deaths are usually related to one or more serious complications, including:

1. Cerebral malaria: If parasite-filled blood cells block small blood vessels to your brain (cerebral malaria), swelling of your brain or brain damage may occur. Cerebral malaria may cause seizures and coma.

2. Breathing problems: Accumulated fluid in your lungs (pulmonary edema) can make it difficult to breathe.

3. Organ failure: Malaria can damage the kidneys or liver or cause the spleen to rupture. Any of these conditions can be life-threatening.

4. Severe Anemia: Malaria may result in not having enough red blood cells for an adequate supply of oxygen to your body's tissues (anemia).

5. Low blood sugar: Severe forms of malaria can cause low blood sugar (hypoglycemia), as can quinine — a common medication used to combat malaria. Very low blood sugar can result in coma or death.

6. Convulsion; This occur when the patient experienced prolonged high body temperature

1.12 Validation of Data

Validation is the act of confirming or verifying (Taylor, Lillis, & Lynn., 2015). The study covers detailed information about Miss J.D, her family and her disease condition. Her subjective data was taken from her and her attendants. The data was obtained through observations, interviews and doctor's case history about her disease condition. With references to the data collected from patient, literature review and all sources of information, the data is found to be accurate and relevant, clinical features exhibited by patient are similar to those in literature. This data is therefore valid for the study.

CHAPTER TWO
ANALYSIS OF DATA

2.0 Introduction

Data analysis is the science of examining data to conclude the information to make decisions or expand knowledge on various subjects. Analysis of data is the second stage of the nursing process, and it involves grouping the information collected at the assessment phase in simpler components. This chapter analyses data collected in chapter one, it includes information collected from patient's medical history, laboratory investigations, nursing interventions and literature review on the condition. This process happens to obtain precise conclusions to help us achieve our goals. Areas under this chapter include;

1. Diagnostic test/Investigation
2. Causes
3. Clinical manifestations
4. Treatment
5. Complications
6. Patient/Family strength
7. Health problem
8. Nursing diagnosis

2.1 Comparison of Data with Standards

This involves the comparison of data collected and gathered from Miss J.D with standards. The areas concerned are the diagnostic investigation, aetiology of the condition, clinical features, treatment and complications if any.

2.2 Diagnostic Investigation/Test

Diagnostic is the process of identifying a disease/an injury from its signs and symptom. Test refers to a trial, experiment or an examination designed to determine the qualities or characteristics of something.

The following diagnostic investigations were carried out on Miss J.D. when she was on admission:

1. Malaria RDT

2. B/F for malaria parasite

3. Full Blood Count

4. Urine R/E

Table 1: Diagnostic Investigation / Test Compared With Literature Review

Diagnostic tests from literature review	**Diagnostic tests carried out on patient**
History and clinical signs and symptoms	History was taken and signs and symptoms were monitored.
Full blood count	Was carried out
Polymerase chain reaction	Was not done for patient
Lumber puncture	Was not done for patient
Erythrocyte Sedimentation Rate (ESR)	Was not done for patient
Blood cultures	Was not done for patient
Blood film for malaria parasite	Was done for patient
Serological assays	Was not done for patient

With reference to the table, Polymerase chain reaction (PCR), lumber puncture, serological assay, erythrocyte sedimentation rate (ESR) and blood culture were not conducted because the other laboratory investigation such as blood film for malaria parasites, malaria RDT, history and clinical signs and symptoms confirmed the diagnosis of severe malaria.

Table: 2 Diagnostic Investigations / Test

Date	Specimen	Investigations	Results	Normal Values	Interpretations	Remarks
29/11/22	Blood	Malaria RDT	Positive	Negative	Malaria parasite present, indicating client has severe malaria	Anti-Malaria was given thus Artesunate and Arthemeter +Lumefantrine
29/11/22	Blood	Blood film for malaria parasite	Positive	Negative	Malaria parasite present, indicating client has severe malaria	Injection Artesunate 120mg at 0hour, 12hours and then 24hours were prescribed and administered
30/11/22	Urine	**Urine R/E** Sugar Hematuria Ketones	 Negative Negative Negative	 0 to 0.8 mmol/L 0.142-0.195mmol/l 0.136-0.198	 Normal Normal Normal	No treatment
01/12sss/22	Blood	Full Blood Count (FBC) to detect hemoglobin	WBC-4.9×10^3/L Platelet level- 305×10^9/L	WBC- 2.60- 8.50×10^3/ul Platelet	Normal Normal	

		levels, white blood cell count, platelet count and red blood ceels levels.	Hemoglobin level – 4.7g/dl	level- 150-400×10^9/l Hemoglobin level- 9.5-15g/dl	Low	Syrup Zincofer 5mls daily and tablet folic 5mg daily was prescribed

2.3 Causes of Patient's Condition

From the literature reviewed, information gathered from client relatives, medical records, and the results of the laboratory investigations revealed that J.D's condition was as a result of malaria parasites. It therefore indicated that, through the bite of an infective female anopheles mosquito which injected plasmodium falciparum into the blood of the patient as evidenced by the presence of malaria parasites in the patient's blood.

Table 3: Clinical manifestation exhibited by J.D as compared with literature review

Clinical Manifestations in Literature Review	**Clinical Manifestations Presented by Miss J.D**
Fever and chills	Patient had fever (38.9) and chills
Nausea and vomiting	Patient had nausea and vomiting
Diarrhoea	Patient did not experience diarrhoea
Loss of appetite	Patient experienced loss of appetite
Chest or abdominal pain	Patient did not experience chest/abdominal pain
Confusion	Patient was not confused
Rapid breathing	Patient did not experience rapid breathing
Headache	Patient experienced headache
Rapid heart beat	Patient did not have rapid heartbeat
Body discomfort	Patient experience body discomfort
Insomia	Patient experienced insomnia
Pulmonary edema	Patient had no pulmonary edema.
Anaemia	Patient had anemia.
Muscle/Joint pain	Patient did not experience muscle/joint pain
Coma	Patient did not experience coma
Fatigue	Patient did not experience fatigue

Specific Medical Treatment Prescribed and Administered to Patient

According to Weller, (2014) Treatment refers to the mode of dealing with a patient or disease. This condition is mostly treated medically with medications and therefore the following specific medications were prescribed for the client.

1. Intravenous paracetamol1g tds for 24hours
2. Artesunate Injection 120mg at 0hours, 12hours, and then 24hours
3. Artemether + Lumefantrine Tablet, 80mg + 480mg bid for 3days
4. Tablet paracetamol 1g tds for 5days
5. Tablet folic acid 5mg daily for 14days
6. Syrup Zincofer 5mls daily for 30days

Table 4: Comparison of the Treatment in the Literature Review with the Treatment that was administered

Medical treatment in Literature Review	**Medical treatment given to Miss J.D**
Antimalarial	Injection Artesunate and tablet Artemether + lumefantrine were prescribed
Analgesics and antipyretics	Intravenous paracetamol and tablet paracetamol was prescribed and served
Oxygen therapy	Intranasal oxygen was not administered to patient.
Intravenous infusions	Patient was not given any intravenous fluid
Anticonvulsant	Anticonvulsant was not prescribed
Heamatinics	Tablet folic acid and Syrup Zincofer were prescribed and served.

Table 5: Pharmacology of Drugs administered to Miss J.D

Date	**Name of Drug**	**Dosage/Route of administration In Literature**	**Dosage/ route of administration to the patient**	**Classification of drug**	**Desired Effect**	**Actual Action Observed**	**Side Effect**
29/11/22	Artesunate	**Child dose**:<20kg = 3.0mg/kg Children and adult dose:>20kg = 2.4mg/kg Route; Intramuscular and Intravenous	**Dosage;**120mg tds× 24hours intravenously.	Antimalarial	It inhibits protein and nucleic acid synthesis of the plasmodium falciparum and also prevents complications.	Patient had resolution of the signs and symptoms of malaria	Loss of appetite, Nausea and Dizziness Patient did not experience any side effects.

29/11/22	Paracetamol	**Dosage** 0.5–1 g every 4–6 hours; maximum 4g per day Route Oral, rectal and IV	**Dosage**; 1g tds ×24hours intravenously	Analgesics and Antipyretics	For relieve of pain and fever	Patient temperature reduced from 38.9℃ - 36.8℃ gradually and patient reported relief of fever	Malaise, skin reactions, Haematological reactions, allergic reactions and liver damage following drug overdose. Patient experienced no side effects.

29/11/22	Paracetamol	**Dosage** 500-1000mg four times daily **Route** Oral Rectal Intravenous	**Dosage** 1g tds for 5 days **Route** Oral	Antipyretic/ Nonopioid analgesic	To reduce pain and fever	Patient's pain subsided	Malaise, skin reactions, Haematological reactions, allergic reactions and liver damage following drug overdose, agitation, fatigue, dyspnea None was observed

30/11/22	Folic acid	**Dosage;** 1mg-5mg daily **Route;** Orally, Intravenous	**Dosage;** 5mg daily **Route;** Orally	Heamatinics	Maintenance of normal erythropoietin by making healthy red blood cells which carry oxygen.	Patient haemoglobin level increased to 12.4g/dl.	Headache, dizziness, abdominal pain. Patient did not experienced side effects
30/11/22	Zincofer	**Dosage;** It depends on doctors prescription. **Route;** Orally	**Dosage;** 5mls daily for 30days	Multivitamin (Heamatinics)	It corrects symptoms like, loss of appetite and also corrects anaemia.	Patient appetite for food increased as condition improved and haemoglobin was within the normal random	Diarrhoea blood stool, epigastric pain, constipation. Patient did not experienced any side effect.

01/12/22	Artemether + Lumefantrine 20/120mg	**Dosage;** 0.5–1 g every 4–6 hours; maximum 4g per day Route Oral, rectal and IV	**Dosage;** 80/480mg bid for 3days	Antimalarial	For relieve of fever and chills	Patient was relieved from fever and chills as patient was not feeling warm to touch.	Coma, Convulsion, dizziness, rashes nausea, vomiting, sleep disturbances. Patient experienced no side effect

2.4 Complications

With reference to the complications listed in the literature review such as severe anaemia, respiratory distress, convulsion, etc. None of these complications were experienced by the patient except severe anaemia. She was given Tablet folic acid and syrup Zincofer to increase and maintain the normal haemoglobin level.

2.5 Patient / Family Strength

Patient and family strengths refer to the ability to do things that needs lot of mental or physical effort (Lewis, 2015). The strengths observed in my patient and family during the period of hospitalization are;

1. Patient allowed herself to be tepid sponged (29/11/22)
2. Patient could describe the nature of pain (29/11/22)

3. Patient asked questions to seek clarification on her condition and available treatment (30/11/22)

4. Patient could sleep for 4hours in the night (30/11/22)
5. Patient could eat one-third of 500ml of porridge served. (30/11/22)
6. Patient could follow instructions and participate in her care. (01/12/22)

2.6 Patient/ Family Health Problems

These are the problems or factors that affect the patient physically, mentally, socially and spiritually that can hinder his speedy recovery (Weller, 2014). These problems include actual and potential health problems.

1 Patient had fever (38.9℃). (29/11/22)
2. Patient complained of headache (29/11/22)
3. Patient was anxious (30/11/22)
4 Patient complained of difficulty in sleeping during the night. (30/11/22)
5. Patient complained of loss of appetite (30/11/22)
6. Patient complained of body weakness (01/12/22)

2.7 Nursing Diagnosis

It is a statement about the patient's actual or potential health concerns that can be managed through independent nursing interventions. After assessing miss J.D, the following nursing diagnoses were made based on the patient's health problems listed;

1. Hyperthermia (38.9℃) related to presence of plasmodium parasite in blood. (29/11/22)
2. Impaired comfort (headache) related to reduced blood perfusion to the brain tissue (29/11/22)
3. Anxiety related to change in patient health status (30/11/22)
4. Difficulty in sleeping related to noisy environment (30/11/22)
5. Imbalanced nutrition (less than body requirement) related to loss of appetite (30/11/22)
6. Activity intolerance related to body weakness (01/12/22)

CHAPTER THREE
PLANNING FOR PATIENT/FAMILY CARE

3.0 Introduction

Planning is defined as the process in which the nurse and the patient together consider the goals to achieve in meeting the patient's identified or potential problems in daily life and produce an individual care plan. (Weller, 2014). It also aims towards designing measures or interventions required to prevent, reduce or eliminate the patient's health problems that were identified during the analysis.

3.1 Objective/ Outcome Criteria

A nursing outcome refers to a measurable behavior demonstrated by an individual, family or a group of people that is responsive to nursing intervention (Herdman & Kamitsuru, 2018)

1. Patient would have her temperature within normal range (36.2-37.2)℃ within 6hours as evidenced by; (29/11/22)

a. Patient verbalizing she no longer feels warm

b. Nurse observing that patient has temperature within the normal range using the clinical thermometer

2. Patient intensity of headache would subside within 24hours as evidenced by; (29/11/22)

a. Patient verbalizing her pains has subsided.

b. Nurse observing a cheerful facial expression.

3. Patient and family would express a relieve of fear and anxiety within 24 hours as evidenced by; (30/12/2022)

a. Patient and family verbalizing that they no longer feels anxious.

b. Nurse observing patient/family cooperating with care and interacting with other patients.

4. Patient would attain normal sleeping pattern within 48hours as evidenced by; (30/11/22)

a. Patient verbalizing she can now sleep.

b. Nurse observing patient sleep for 6-8hours in the night when the environment is quiet.

5. Patient would be able to maintain adequate nutrition within 48hours as evidenced by; (30/11/22)

a. Patient verbalizing she has gained appetite for food.

b. Nurse observing patient takes at least two-thirds of meal served.

6. Patient would be able to regain strength for her daily activities within 24hours as evidenced by; (01/12/2022)

a. Patient verbalizing she no longer has any feeling of body weakness.

b. Nurse observing that patient participate in activities that she can tolerate

Table 6: Nursing Care Plan for Patient / Family

Date/ Time	Nursing Diagnosis	Nursing Objectives/Outcome Criteria	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation Statement	Sign
29/11/22 9:00pm	Hyperthermia (38.9℃) related to presence of plasmodium parasite in blood.	Patient would have her temperature within normal range (36.2-37.2)℃ within 6 hours as evidenced by; 1. Patient verbalizing she no longer feels warm. 2. Nurse observing patient temperature reduced to normal range using the clinical thermometer.	1. Assess patient temperature every 30minutes. 2. Serve cold drinks. 3. Ensure adequate ventilation. 4. Encourage patient to bath with tepid water. 5. Encourage patient to put on light clothes. 6. Serve prescribed antipyretics.	1. Patient temperature was assessed every 30minutes. 2. Cold drinks such as malt was served to reduce the temperature. 3. Good ventilation was ensured by opening windows and fans. 4. Patient was encouraged to bath with tepid water in order to reduce high body temperature. 5. Patient was encouraged to put on hospital gown. 6. Prescribed IV Paracetamol 1g was served and recorded.	30/11/22 3:00am	Goal fully met as 1. Patient verbalized she no longer feels warm. 2. Nurse observed that temperature has reduced to the normal range (36.2℃- 37.2℃)	B.M.

Nursing Care Plan for Patient / Family Continued

Date/ Time	Nursing Diagnosis	Nursing Objectives/Outcome Criteria	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation Statement	Sign
29/11/22 9:00pm	Pain (Headache) related to reduced blood perfusion to the brain tissue.	Patient intensity of pain would subside within 24hours as evidenced by; 1. Patient verbalizing her pains has subsided. 2. Nurse observing a cheerful facial expression.	1. Reassure patient and relatives. 2. Assess the frequency of pain using the numerical rating scale 3. Assist patient to assume a comfortable position 4. Encourage patient have adequate sleep. 5. Engage patient in diversional therapy. 6.Administer prescribed	1. Patient and relatives were reassured to allay fear and anxiety. 2. Patient intensity of pain was assessed using the numerical rating scale (0-10) 3. Patient was assisted in a prone position 4. Patient was encouraged to stay calm in bed unless needed to undertake an activity. 5. Patient was engaged in watching television to divert pain. 6. Prescribed IV	30/11/22 9:00pm	Goal fully met as 1. Patient verbalizing her pains has subsided 2. Nurse observed a cheerful facial expression.	B.M

			analgesics	paracetamol was administered to reduce pain.			

Nursing Care Plan for Patient / Family Continued

Date/ Time	Nursing Diagnosis	Nursing Objectives/Outcome Criteria	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation Statement	Sign
30/11/22 7:00am	Anxiety related to change in patient health	Patient would express a relieve of fear and anxiety within 24 hours as evidenced by; 1. Patient/family verbalizing that they no longer feel anxious. 2. Nurse observing patient cooperating with care and interacting with other patient.	1. Reassure the patient on disease condition 2. Give patient and family clear, concise explanation of every procedure. 3. Provide proper orientation to the new environment. 4. Educate patient and relative on treatment and prevention of malaria. 5. Encourage expression or clarification of needs,	1. Patient was reassured on disease condition 2. Procedure was explained to patient and family. 3. Patient was oriented to the ward and its environment to promote comfort and decrease anxiety. 4. Patient and family were educated on the treatment of malaria such as the administration of Artesunate injection. 5. Patient was encouraged through communication to ask for clarification on issues	01/12/22 7:00am	Goal fully met as 1. Patient and family verbalized they no longer feel anxious. 2. Nurse observed patient and family cooperate with care and interact with other patients.	B. M

			concerns, unknowns and questions 6. Introduce patient to a patient who has recovered from similar disease.	bothering her 6. Patient was introduced to a patient who has recovered similar disease to reduce her level of anxiety.			

Nursing Care Plan for Patient / Family Continued

Date/ Time	Nursing Diagnosis	Nursing Objectives/Outcome Criteria	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation Statement	Sign
30/11/22 7:00am	Difficulty in sleeping related to noisy environment.	Patient would attain a normal sleeping pattern within 24hours as evidenced by; 1. Patient verbalizing she can now sleep with less period of awakening during the night. 2. Nurse observing patient sleep for at least 6- 8hours in the night.	1. Ensure a quiet environment. 2. Put patient in a comfortable bed free from creases and crumps. 3. Ensure ventilated room. 4. Restrict visitors. 5. Encourage patient to have a warm bath before going to bed. 6. Provide patient with dim light at night.	1. Quiet environment was ensured for patient to sleep well. 2. Patient was put on a comfortable bed free from creases and crumps to promote sleep. 3. Patient room was ensured with good ventilation by turning on fans and opening windows. 4. Visitors were restricted to avoid interrupting patient sleep. 5. Patient was encouraged to have a warm bath before going to bed. 6. Dim light was provided in the night to facilitate sleep.	02/12/22 7:00am	Goal was fully met as 1. Patient verbalized she can now sleep with less awakening periods in the night. 2. Nurse observed patient sleep for 7hours in the night.	B.M

Nursing Care Plan for Patient / Family Continued

Date/ Time	Nursing Diagnosis	Nursing Objectives/Outcome Criteria	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation Statement	Sign
30/11/22 7:30am	Imbalanced nutrition (less than body requirement) related to loss of appetite.	Patient will be able to attain and maintain adequate nutrition within 48 hours as evidenced by; 1. Patient verbalizing that she has gain appetite for food. 2. Nurse observing that patient takes at least two thirds (2/3) of meal served.	1. Reassure patient. 2. Assess nutritional status of patient. 3. Plan meal with patient and dietician. 4. Encourage patient to take at least two-thirds of meal served. 5. Educate patient on the need to nutritionally rich diets 6. Weigh patient daily.	1. Patient was reassured. 2. Patient nutritional status was assessed. 3. Meal was planned with patient and dietician to provide patient with her meals of choice. 4. Patient was encouraged to take at least two-thirds of meal served to gain energy. 5. Patient was educated on the need to take nutritionally rich diets to gain nutrients for health living. 6. Patient weight was checked daily to ensure progress in patient nutrition.	02/12/22 7:30am	Goal fully met as 1. Patient verbalizing she has gained appetite for food. 2. Nurse observed that patient can take two-thirds of meal served	B.M

			7. Serve prescribed multivites	7. Prescribed Syrup Zincofer was served			

Nursing Care Plan for Patient / Family Continued

Date/ Time	Nursing Diagnosis	Nursing Objectives/Outcome Criteria	Nursing Orders	Nursing Interventions	Date/ Time	Evaluation Statement	Sign
01/01/22 9:15am	Activity intolerance related to body weakness	Patient would be able to regain strength for her daily activities within 24 hours as evidenced by; 1. Patient verbalizing that she no longer feel weak. 2. Nurse observing that patient participate in activities that she can tolerate.	1. Reassure patient and family. 2. Assess patient level of physical activity and mobility. 3. Assess nutritional status of patient. 4. Encourage patient to rest. 5. Engage patient in passive and gradually active exercise every 2 to 4 hours	1. Patient and family were reassured. 2. Patient level of physical activity and mobility was assessed. 3. Nutritional status of patient was assessed by observing patient eating habit. 4. Enough rest was ensured to conserve energy to alleviate fatigue. 5. Patient was engaged in passive and gradually active exercise every 2 to 4 hours which fostered her muscle strength and tone 6. Items of daily use such as	02/12/22 9:15am	Goal fully met as 1. Patient verbalized she no longer feel weak. 2. Nurse observed patient participate in activities that she can tolerate.	B.M

			6. Place items of daily use close to patient. 7. Educate the patient in recognizing signs of physical over activity.	mirror,bottled water were kept close to patient. 7. Patient was educated on signs of over .activity such as muscle or joint pain.			

CHAPTER FOUR

IMPLEMENTATION OF PATIENT/FAMILY CARE PLAN

4.0 Introduction

Implementation phase is when the nurse carries out the selected nursing orders. This is referred to as intervention; it is detailed, specifying what actually was done for the patient /family. (Weller, 2014)

This chapter talks about the nursing care rendered to patient/family from day of admission, day of discharge and home visit where care was terminated. It was based on the health problems that were identified. It also entails review of patient and home visits that was done to ensure continuity of care.

4.1 Summary of Care Rendered To Patient

The nursing care rendered to patient and her family started on the day of her admission which is on the 29th November, 2022 to the day care was terminated which was the 12th of December 2022. The care and management of patient and her family was planned to meet their physiological, emotional and physical needs. While she was on admission routine nursing care were done and all necessary documentations were also done. The care rendered to the patient/family is discussed on daily basis.

4.1.1 First Day of Admission (29th November, 2022)

Miss J.D was trans-into the female ward from the Accident and Emergency unit on 29th November, 2022 at 8:13pm accompanied by a staff nurse and a relative. Patient was weak but fully conscious. Being at the nurses' station with the shift in charge at the time of patient's arrival, I was charged to carry out her admission to the ward. Patient was warmly welcomed to the ward and made comfortable at the Nurses station. I collected her hospital card and confirmed her identity by mentioning her name of which she responded. She was reassured to allay anxiety. She was introduced to the staff on duty, other patients at the ward and was made comfortable in an already prepared simple unoccupied bed. All necessary information such as client particulars (name, sex, age, house address) were recorded in the admission and discharge book, as well as the daily ward state. Her vital signs were checked and recorded as

Temperature 38.2s^{O}C (degrees Celsius)

Pulse 99beats per minute

Respiration 24 cycles per minute

Blood pressure 90/60 millimeters of mercury

The following investigations were made on patient at the Emergency unit

Malaria RDT

Blood film for malaria parasite

And these were done whiles patient was at the female's medical ward

Full Blood Count

Urine R/E

Patient was managed on the following prescribed medications throughout her period of hospitalization;

Injection Artesunate120mg tds for 24hours

Intravenous paracetamol 1g tds for 24hours

Tablet paracetamol 1g tds for 5days

Tablet Artemether and Lumefantrine 80/480mg bd for 3day

Tablet folic acid 5mg once daily for 14days

Syrup Zincofer 5mls once daily for 30days

Patient came with high body temperature of 38.2℃. I rechecked patient temperature and was 38.9℃ at exactly 8:30pm. With patient complains nursing diagnosis was formulated as; hyperthermia related to presence of plasmodium parasite in the blood. An objective was set that

Patient will have her body temperature within the normal range (36.2℃-37.2℃) within 6hours as evidenced by patient verbalizing she no longer feel warm. Patient was asked to take in cold drinks and put on light clothes. I then switched on the fan to reduce temperature in the room. Windows were opened to allow ventilation. She was then asked to bath with tepid water and after 30minutes it came to 37.6℃. Patient was asked to take warm tea to help manage the temperature. Prescribed IV P'mol 1g tds was setup to manage the fever.

At the same time, another nursing diagnosis was formulated as; pain (headache) related to reduced blood perfusion to the brain tissue. An objective was set that patient headache will be subside within 24 hours as evidenced by patient verbalizing her pain have subsided. Patient was reassured to allay all her fears, intensity of pain was assessed using the numerical rating scale and it was 6. Patient was assisted to assume comfortable position thus prone. Patient was encouraged to have adequate sleep, she was engaged in watching television to divert pain and IV paracetamol was served and documented.

Patient was oriented to the ward and its annexes, Hospital protocol regarding visiting hours, time for checking vital signs were explained to patient. Physical examination on patient was conducted and no abnormalities seen. Patient's particulars were entered into the admission and discharge book and the daily ward state.

I introduced myself to the patient as a final year nursing student at Holy Family Nursing and Midwifery Training College, Berekum who want to take her and her family for my care study. Miss J.D and her mother were told that the care study is a requirement for the award of a Diploma in Registered General Nursing by the Nursing and Midwifery Council of Ghana. I asked for permission to use her and her family for the study and they agreed. I explained to them in simple language what it will entail and promised to make information gathered confidential. I made it clear to patient that other health workers will play their role in the care of miss J.D. Patient/Family care study is to enable me render to her individualized comprehensive nursing care until discharged. A brief education about the diseases condition was given. I told them that I will go for at least three home visits before and after discharge. Patient was very happy and agreed to my request.

I chose miss J.D as my patient because I wanted to know much detailed information concerning malaria and to gain more knowledge about malaria.

At 10:30pm, Injection Artesunate 60/120mg was served and patient was made comfortable in bed.

4.1.2 Second Day of admission (30th November, 2020)

At 2:30am, the objective that was set yesterday to relieve patient's body temperature within the normal range was achieved as patient was relieved from hyperthermia and had temperature of 36.8℃ and also was having a cheerful facial expression, verbalizing her pains have subsided.

Patient was awake when I got to the ward at 6:20 am. Her vital signs checked and recorded as

Temperature 37.1^0C

Pulse 123bpm

Respiration 32cpm

Blood pressure 107/67mmHg

Patient cooperation during period of vital signs was poor. I went to patient and saw that she seemed a bit worried, I enquired from her why and she said she is worried about her current health status comparing to her normal state.

At 7:00am I realized that patient and family were still anxious, therefore a nursing diagnosis was formulated as Anxiety related to change in patient health. An objective was set that patient will be relieved of anxiety within 24hours patient and family verbalizing that they no longer feel anxious. Patient was reassured that staffs are supportive, approachable and can communicate with always. Patient was reoriented to the ward. Patient and family were given clear, concise explanation of every procedure. They were educated on the treatment and measures to prevent the mosquito parasite. They were also encouraged through communication to ask for clarification on issues bothering her.

At the same time, patient complained of difficulty in sleeping. A nursing diagnosis was formulated as Difficulty in sleeping related to noisy environment with an objective that, patient would be able to sleep within 48hrs. Patient was reassured and put on a comfortable bed free from creases. Also a well-ventilated room with a quiet environment was ensured for patient to

sleep and rest. Visitors were restricted to promote patient sleep. Patient was encouraged to take warm bath before going to bed. Dim light was provided to encourage sleep.

Patient had her breakfast which was porridge and bread, she was able to consume only one-third of the porridge and complained of bitterness in the mouth. Miss J.D ate only a small amount of the porridge due to the bitterness in relation to the disease.

At 7:30am patient complained of loss of appetite and a nursing diagnose was formulated as Imbalanced nutrition (less than body requirement) related to loss of appetite with an objective of patient being able to attain an adequate nutrition within 48hours. Patient was reassured that she is in the hands of competent staff who will do their best to help her gain her appetite. Patient nutritional status was assessed. Patient meal was planned together with the dietician. Patient was encouraged on the need to take nutritionally rich diet. Prescribed syrup Zincofer was administered to boost patient appetite.

Few hours later another bowl of rice with cabbage stew and egg was served to patient but this time a small bowl since patient meal are going to be in smaller quantities and at regular intervals. Miss J.D was encouraged to eat all foods that will be served to her to prevent malnutrition. Patient was served watermelon after the meal.

Upon interactions with patient's and mother, I informed them about my visit to their home the next day and explained the purpose of the visit. They were very happy for my request and accepted me to carry on. They gave me details of their house as well as the landmarks.

At 8:30pm, an evaluation was done for the objective set yesterday to help relieve patient's intensity of headache within 24hours. Goal was fully met as patient verbalized her pains had subsided and nurse observed a cheerful facial expression.

Patient was made comfortable in bed at 10pm.

4.1.3 Third Day of Admission (01st December, 2022)

At 6:00am on the third day of admission, I went and continue with my care for Miss J.D. Her morning vital signs were checked and recoded as

Temperature 36.6^0C

Pulse 82bpm

Respiration 21cpm

Blood pressure 96/61mmHg

At 7:00am an evaluation was done for the objective set yesterday to help relieve fear and anxiety within 24 hours. Goal was fully met as patient verbalized she no longer feels anxious and the nurse observed patient interacting with other patient.

At 8:30am, during ward rounds, Dr. R.U attended to Miss. J.D and Artemether + Lumefantrine Tablet 80/480mg bid ×72hrs was prescribed. I accompanied her mother to the ward pharmacy to take the prescribed medication. Upon my enquiries with the doctor, he said there is a possible discharge in the next. After the ward rounds exactly 9:15am patient seemed a bit quiet, Patient refused to summarize what the doctor said and I again asked her if she had performed her usual routines, but patient seemed a bit unwilling to answer. I deduced that she has lost concentration. I enquired from her why and she said she was feeling weak and cannot do anything. Patient complained that she could not stand for long period, felt dizzy and felt she will fall on the floor.

Nursing diagnose was formulated as Activity intolerance related to body weakness with objective that patient will regain strength for her daily activities within 24hours. Patient was reassured that staffs are supportive, approachable and can communicate with always. Patient's level of physical activity and mobility was assessed. Also her nutritional status was assessed and was asked to eat on regular intervals. Patient was encouraged to have enough rest and engage in passive exercise every 1 to 2hours. Patient items of daily use such as mirror, bottled water were kept close to patient. Patient was educated on signs of over activity such as muscle or joint pain. At 10:00am her vital signs was checked and recorded. Patient was assisted to walk around the hospital. She was asked to take adequate water whenever she felt thirsty to prevent dehydration. Her due medications and vital signs were checked and recorded.

I educated patient about possible discharge. She was encouraged to make preparations towards discharge. Patient was very happy because she was about to write her exams. I encouraged her to exercise patience and discuss the possible discharge with her family concerning preparation.

At 10:00am her vital signs were checked and recorded as indicated in the appendix. Her prescribed tablet Artemether + Lumefantrine 80/480mg was served and documented. Around 1pm, patient was served with banku with okro stew and fried fish and 'wele'. Patient was encouraged to take banana after the meal. Her 2pm vitals were checked and recorded as in appendix. I discussed with patient about my first home visit.

I left the ward and picked a tricycle in the market. I alighted at the town within 15minutes. After my conversation with her elderly brother I came back to the ward at 5:00pm. Patient was told and educated on all that happened in the house. Education was focused on their environmental hygiene. Patient took boiled plantain with beans stew at exactly 5:20pm. Afterwards she took her bath and I offered her a seat to feel relaxed. Her 6pm vitals were checked and recorded as in appendix and her due medications were served. Patient took her hot tea and bread at 8pm.

At 10pm, her vital signs were checked and recorded as in appendix. Tablet Artemether + Lumefantrine 80/480mg was served as 10pm medication, patient was made comfortable in bed at 10:30pm.

4.1.4 Fourth Day of Admission/ Day of Discharge (02nd December, 2022)

At 6:25am, I went to continue the nursing care rendered to patient. She was awake and feeling cheerful, strong and better. I greeted her and she responded with a cheerful facial expression, she was cheerful because of the nursing care rendered to her over her period of admission. Her vital signs were checked and recorded by the night nurse as;

Temperature 37.0℃

Pulse 99bpm

Respiration 24cpm

B.P 92/52mmHg

Patient was asked to know how far with her sleeping pattern. She confirmed that since there was no noise in the ward and also was able to take adequate food, she slept comfortably without waking up except when she got the urge to urinate.

At 7:00am, the objective that was set on 3oth November,2022 that patient will attain a normal sleeping pattern was evaluated and goal was fully met as patient verbalized she can now sleep with less awakening periods in the night and nurse observed patient sleep for 7hours in the night. Patient usual breakfast was served after the procedure. Patient was able to take two-third of the porridge served. I thanked her and she replied that her appetite now has increase, hence the objective that was set on 30th November, 2022 that patient would attain adequate nutrition within 48hours was evaluated as goal fully met as patient verbalized that her appetite for food has increased and the nurse observed that patient can take two-third of meal served.

During the ward rounds at 8:45am, Dr. R.U asked patient if there is any health complains and patient said she was okay. The doctor assessed her and per interactions with her, he told the patient that she is going to be discharged. Her relative was informed and the bills were assessed to be paid. Payment was made for medications which were not covered by National Health Insurance Scheme. Patient and relative were educated on the causes, signs and symptoms, prevention and treatment of malaria. Patient was educated on the need to eat food containing high fiber like whole grains, the entire essential food nutrients, for example protein, vitamins and irons, as well as maintaining good personal hygiene. Patient was made aware of the indications of the drugs given, side effects and adverse effects. She was encouraged to adhere to the medication therapy and early report of drug adverse effect to the hospital. The need to use insecticide treated mosquito net especially for the children was stressed.

I encouraged them to wear long sleeves and gown whenever they feel to stay outside during the evening. I answered all questions that were asked by patient and relative. Her medications had been served.

At 9:15am an objective that was set on 1st December, 2022 that patient will regain strength for her daily activities was fully achieved as evidenced by patient looking active in bed and performing her normal routine activities.

Her 10:00am vitals was checked and recorded as;

Temperature	36.5^{o}C
Pulse	72bpm
Respiration	18cpm
Blood pressure	91/62mmHg

Patient was informed to come for review on 9th December, 2022 at the main Out Patient Department. Patient name was written in the admission and discharge book. Education on the need for review was done to ensure patient reports on the said date.

As at 11:00am, I assisted them to pack their things. She and her relative expressed their profound gratitude to the staff and I bid them good bye.

Afterwards I came back to the ward and removed patent bed linen and discarded into the dirty linen container. I then cabolised the bed and the lockers.

4.2 Preparation for Discharge

Patient and relative were educated on the causes, signs and symptoms, prevention and treatment of malaria. Patient was educated on the need to eat food containing high fiber like whole grains, the entire essential food nutrients, for example protein, vitamins and irons, as well as maintaining good personal hygiene. Patient was made aware of the indications of the drugs given, side effects and adverse effects. She was encouraged to adhere to the medication therapy and early report of drug adverse effect to the hospital. The need to use insecticide treated mosquito net especially for the children was stressed.

Emphases were made on their environmental hygiene. They were encouraged to drain all stagnant water and clear bushy areas. I educated them on the need to empty bins on time and proper regular hand washing. I encouraged them to wear protective clothing whenever they feel to stay outside during the evening. I answered all questions that were asked by patient and relative. Her medications had been served.

Patient was informed to come for review on 9th December, 2022 at the main Out Patient Department. Education on the need for review was done to ensure patient reports on the said date. Patient and the family bid the ward inmates and staff.

4.3 Follow Ups/Home Visits /Continuity of Care

Home visit is a type of visit paid to patients/clients in their homes to assist them lead a healthy life, prevent illness or disabilities, complications and to ensure continuity of care. It helps to

assess the client in a normal situation using his/her own items. Early detection and prevention of some conditions are made.

Home visits were done before and after patient's discharge. It created an opportunity to make observations in the patient's natural environment.

First Home Visit (01/12/2022)

I paid my first visit when my patient was still in the hospital. I chose that because it would help me to know patient's residence and to assess the environment in which she lives, verify the information given and also to identify any risk factor that could lead to patient's condition, to identify any nearest health facility at the area and to know how to prepare my patient towards discharge.

After planning with Miss J.D and her mother Madam E.P, they gave me the direction to their house. I left the ward around 2pm to the Sunyani market where I picked a tricycle.

Within 15 minutes' I was able to alight at the town. They told me they stay near the House of Power ministry church, so asked the driver and I alighted at the Church junction. I asked of the church which I used as the landmark to the place where she stays. I was directed to the area by a woman with the help of the house description of the house and the name Mr. D.D as a driver and the father of Miss J.D. I also used the house number as the landmark (PE1005). I got there around 2:35pm.

When I got to the house, I found no one there so I knocked until I heard a voice. There came a woman who welcomed me. I introduced myself to her and she also did her part as co-tenant named madam A.D. Their house is a mini compound house with 4 bedrooms. It is built with blocks, and was well wired with electricity power, with windows.

The house is painted violet at the bottom and yellow at the top as a design. After she welcomed me, I asked of her welfare including her health status.

Afterwards she directed me to Miss J.D's family room number and introduced me to Mr. J.D as the senior brother of miss J.D. I greeted him and he welcomed me and gave me a seat. We were chatting outside their house where I saw a taxi and asked the brother because I was told the father is a taxi driver. He replied that his father had a fault that is why it has been packed there.

Unfortunately I did not see the father because he had gone to town at that time. I met Mr. J.D with his younger brothers.

I observed that they fetch water from a nearby pipe borne water. Their environment was well kept except for a gutter near the house which seems to be the cause of Miss J.D's illness. They told me they dispose their refuse into a tractor every morning and pay.

I observed that they had a good water storage system. Their environment was well kept and their toilet facility was the water closet type which they were already keeping it clean when I intentionally asked permission to use it and I congratulated them for that. Based on the observations and enquiries I made, I encouraged them to continue keeping their environment clean and take care of their personal hygiene especially the children in the house.

They were advised to report any illness early to the hospital. The need to use insecticide treated mosquito net especially for the children was stressed.

Apart from this I educated them on the causes, signs and symptoms, prevention and treatment of malaria and encouraged them to wear long sleeves and gown whenever they feel to stay outside during the evening. I answered all questions that were asked and lastly informed them to receive their beloved warmly and co-operate with her as she would be coming home soon. After this I asked permission to leave which was granted to me. I returned to the hospital around 5:30pm.

Second Home Visit (04/12/22)

The date for my second home visitation was 4th December, 2022. I got to the house at 2:45pm. They were all happy to see me again. After exchange of greetings, I asked Miss J.D of how she is feeling now. She testified that, she is very strong. Their environment was still well kept on assessment. I asked her about the medications which she brought them for me to see and indeed she followed what I told her to do. I thanked her and I reminded them of the education given them and the date for her next review which was 9th December, 2022. I promised them of another visit which will be last. After our discussions, I bid them good bye and the mother and the patient escorted me to the Methodist junction where I got a tricycle to my house.

Review Day (09/12/2022)

On the 9th of December, 2022 patient and mother was met at the Out-Patient Department of Municipal Hospital, Sunyani at 10:00am looking cheerful and lovely as noted from facial expression. I helped patient to be registered into the hospitals system. Her vital signs checked and recorded as follows;

Temperature	36.5^{o}C
Pulse	89bpm
Respiration	22cpm
Blood pressure	94/62mmHg

At the Out-Patient Department, patient was seen by the medical officer at consulting room 4. Upon assessment by Dr. R.U, patient was now looking healthy. Patient did not have complains. She was told not to hesitate to report to the hospital if she should encounter any health problem. She was encouraged to sleep in a treated mosquito net to avoid mosquito bite. She was also encouraged to practice personal and environmental hygiene to protect herself from getting diseases. Patient was assured of a third home visit. I then accompanied them to the hospital entrance where they boarded a taxi to their home.

Third Home Visit (12/12/2022)

On 12th December, 2022 I paid my third visit to Miss J.D. My aim of that visit was to terminate my care for her and her family. I reached there early around 9:30am because I went for night duty. After exchange of greetings, I made them aware of my aim which was to terminate my care. I asked of her health status and she said she is well. On observation, I saw that the environment was clean and free from weeds. Also the gutter was clean as I was told that they have been cleaning it. I then took the advantage and threw more emphasis on the need to ensure personal hygiene, the importance of good nutrition, the need to sleep under well treated mosquito net, the need to eat more fruits and the need to ensure environmental cleanliness. Also, I re-emphasized on the Covid-19 protocols such as washing hands with soap under running water, observing social distancing and sanitizing hand with alcohol hand rub.

I thanked them for their co-operation which made the study a success. Patient and family were glad for all the assistance and care received. I handed over to her mother to continue the care and to encourage her to keep wearing protective clothing to prevent mosquito bites, which she accepted to do so. Although it was quiet a sad event for my care to be terminated, they were very grateful and appreciated my care for them. Without any further questions, I asked permission and left

CHAPTER FIVE

EVALUATION OF CARE RENDERED TO PATIENT/FAMILY

5.0 Introduction

Evaluation is defined as an on-going comparison or appraisal of the degree to which the outcomes have been accomplished. Evaluation is done to ascertain whether the goal set out for

each of the problems identified is achieved as targeted. This chapter gives information about the statement of evaluation, amendment of nursing goals and the termination of the care rendered to my patient and family.

5.1 Statement of Evaluation

The health problems recorded throughout the period of hospitalization were six and objectives were set to solve them. During her four-days hospitalization, the nursing care plan drawn was used which helped to set many goals and objectives related to the assessment made on the patient. Miss J.D was admitted with a diagnosis of severe malaria at the Emergency unit and later sent to the Female Medical ward. During history taking and assessment the following problems were identified; headache, fever (38.9℃), anxiety, difficulty in sleeping, loss of appetite and body weakness.

a) Patient normal body temperature was restored within 6 hours

On admission (29th November, 2022) patient had fever (38.9℃) at 9:00pm and a nursing diagnosis of Hyperthermia related to presence of plasmodium parasite in the blood was formulated. An objective was set to restore patient's body temperature to normal (36.2-37.2℃) within 6 hours. The following interventions were implemented; temperature was assessed every 30minutes, cold drinks such as Malt were served to reduce body temperature, good ventilation was ensured by opening windows and switching on fans, patient. Was encouraged to bath with tepid water, patient was encouraged to put on hospital gown and prescribed IV paracetamol 1g served and recorded.

On 29th November, 2022 evaluation of the set objective at 9:00pm which was to reduce patient temperature within normal range (36.2℃-37.2℃) within 6 hours was done and goal was fully met as patient verbalized that he no longer felt warm and nurse observed that her temperature had reduced to normal range (36.8℃) using clinical thermometer.

b) Patient was relieved from headache within 24hours

On 29th November, 2022 at 9:00pm patient complained of headache, nursing diagnosis of impaired comfort (headache) related to reduced blood perfusion to the brain was formulated. An objective was set to relieve headache within 24hours. The following nursing interventions were

then implemented; Patient was reassured to allay fear and anxiety, patient's pain was assessed using the numerical pain rating scale (0-10), patient was assisted in prone position to feel comfortable, patient was encouraged to have adequate sleep, patient was engaged in diversional therapy to divert pain and prescribed IV paracetamol was administered and recorded.

On 30th November, 2022, at 9pm the goal that was set that patient would be relieved from headache was fully met as patient verbalized that she is relieved of headache and nurse observed that patient had a cheerful facial expression.

c) Patient was relieved of anxiety within 24hours

On 30th November, 2022, at 7:00am, patient was anxious and measures were put in place to solve the associated problem based on the nursing diagnosis of "Anxiety related to change in patient health status" was formulated. Nursing objectives were set to relieve patient of the anxiety within 24 hours. The interventions include; Patient was reassured to trust the nurses and rely on them for her care. Patient was reoriented to the ward. Patient and mother were given clear, concise explanation of every procedure. She was educated on the treatment and control measures to prevent mosquito parasite. Patient was also encouraged to ask for clarification on issues bothering her to help reduce anxiety.

At 7:00am on 1st December, 2022, goal was fully met as patient cooperated with the care given and interacted with other patient and also reported anxiety resolution.

c) Patient regained her normal sleeping pattern

On the 30th of November, 2022, at 7:00am upon my interaction with patient, she complained she could not sleep at night due to the noises at the ward. Patient explained that she found it difficult to fall asleep when she awakes in the night. So, a nursing diagnosis was formulated as sleep pattern disturbances related to noisy environment as evidenced by patient having much awakening periods at night. An objective was set that patient will regain her normal sleeping pattern within 24 hours. The following interventions were carried out; quiet environment was ensured for patient to sleep well, Patient was put on a comfortable bed free from creases and crumps to promote sleep. Visitors were restricted to avoid interrupting patient sleep.

On the 2nd of December, 2022 8:30am , an objective that was set on the 30th November, 2022 that patient will regain her normal sleeping pattern was evaluated as goal fully met as patient verbalized that she was able to sleep during the night with less periods of awakening and nurse observing patient sleep at night for 7hours.

d) Patient was able to attain and maintain adequate nutrition

On the 30th of November 2022 because she felt bitterness in the mouth while eating, a nursing diagnosis was formulated at 7:30am as Imbalanced nutrition (less than body requirement) related to loss of appetite with an objective as patient would be able to attain an adequate nutrition within 48hours.

The following interventions were carried out; Patient was reassured that she is in the hands of competent staff who will do their best to help her gain appetite, patient nutritional status was assessed, patient meal was planned with the dietician to provide her meal of choice, a small bowl of porridge was served in the morning and later another small bowl of rice and stew with egg was served to patient, patient was encouraged to take at least two-thirds of meal served to gain energy, Patient was educated on the need to take nutritionally rich diets to gain nutrients for health living,patient weight was checked daily to ensure progress in patient nutrition. Prescribed Syrup Zincofer was served and documented.

On the 2nd of December, 2022, at 7:40am an objective set on 30th November, 2022 that patient will be able to attain and maintain adequate nutrition within 48 hours was evaluated and goal was fully met as patient verbalized that she has gain appetite for food and was observed eating 2/3 of the meals she was been served.

e) Patient was able to regained strength for her daily activities within 24 hours

On 2ndDecemberber,2022, at 9:15am, an observation was made on patient which showed patient could not perform her usual routines and has lost concentration because she had body weakness. A nursing diagnosis was formulated for the patient as Activity intolerance related to body weakness. An objective was established for the patient as Patient would be able to regain strength for her daily activities within 24 hours.

The following interventions were carried out for the patient; patient and family were reassured, level of physical activity and mobility was assessed. Her nutritional status was assessed and enough rest was ensured to conserve energy to alleviate fatigue. Patient was engaged in passive and gradually active exercise every 2 to 4 hours which fostered her muscle strength and tone, patient items of daily use such as mirror, bottled water were kept close to patient, Patient was educated on signs of over activity such as muscle or joint pain.

On 1st December,2022 at 9:30am ,Goal was fully met as; patient verbalized that she no longer has any feeling of body weakness and participated in activities she can tolerate.

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

This is usually done in cases of partially met or unmet goals. In this case, all objectives were met and as such no amendment of the care plan was carried out.

5.3 Termination of Care Rendered to Miss J.D

This forms the last aspect of the interaction with patient and her family. This is a period in which a therapeutic interaction comes to an end. The interaction with Miss J.D and her family started on the day of admission, 29th of November, 2022, and ended on 12th of December, 2022, during the last home visit. This stage was difficult as there had being a good relationship between the patient, mother, some family members but every nurse-patient relationship needs to be terminated. The preparation for termination started on the day of admission through discharge, home visits including third home visit where care was terminated to review. On the 12th of December, 2022, I visited the patient and her family members at home. They were informed that, it was going to be the last visit to them. They took it in good faith though it was hard for them. They were also happy that Miss J.D had recovered. I thanked them for their co-operation and they asked for God's blessings for me. I thanked them for their co-operation which made the study a success one. Patient and family were glad for all the assistance and care received. I handed over to her mother to continue the care and to encourage her to keep wearing protective clothing to prevent mosquito bites, which she accepted to do so. I informed them of my desire to visit them unofficially whenever I get the opportunity. They were happy and noted that they would miss my care and would adhere to all instructions given to them. It was a moment to remember when I told them of my intention to leave. Patient together with her mother accompanied me to the church junction and bade me a good bye.

CHAPTER SIX

SUMMARY AND CONCLUSION

6.0 Introduction

This is the last chapter for the patient/family care study and it entails the summation and conclusion of all care to patient/family throughout the period of hospitalization. It comprises of the student's personal appreciation of the therapeutic relationship with the patient and the use of the nursing process. Summary is a comprehensive and usually brief abstract, compendium of

previously stated facts or statements. Conclusion is something that you decide when you have thought about all the information connected with the situation (Weller, 2014)

6.1 Summary

Miss J.D. is a 17-year old girl born on the 11th of September, 2005 at Dormaa Kyeremasu Hospital. She is dark in complexion, she weighs 49kg and a height of 1.4m tall. Miss J.D. is a National Health Insurance (NHIS) beneficiary. She comes from Sunyani in the Bono Region. Mr. D.D and Madam E.P are her parents. They are living in a mini compound house painted in violet.

Patient was admitted to the Female Medical ward through the Accident and Emergency Center of the Municipal Hospital Sunyani on the 29th of November, 2022 at 8:13pm with a diagnosis of severe malaria. Patient was educated on severe malaria and its management. Patient was also assisted in maintaining her personal hygiene, rest and sleep and adequate nutrition was ensured.
The diagnostic investigations carried out on the patient were; Blood film for malaria parasite, Urine Routine Examination (R/E), blood specimen for full blood count.

Medical treatment given to the patient included:

1. Intravenous Paracetamol 1g tds for 24hours

2. Artesunate Injection 60/120mg tds 0, 12, 24

3. Artemether + Lumefantrine Tablet, 80/480mg bid for 3days

4. Tablet Paracetamol 1g tds for 5days

5. Tablet Folic Acid 5mg daily for 14days

6. Syrup Zincofer 5mls daily for 30days.

Education was given to patient and mother on the importance of good nutrition. They were also on the need to eat more fruits and the need to ensure good personal hygiene. They were encouraged to sleep under treated insecticide mosquito net and to ensure environmental cleanliness. Patient and mother were advised on the importance of reporting to the health Centre

early whenever they are sick. Follow up care continued until she was declared medically fit. First home visit was 1st December,2022, 2nd home visit was 4th December,2022 and the third home visit was on 12th December,2022.

Finally, client was handed over to her mother on the 12th December, 2022 marking the termination of the care. Miss J.D. and her family gained deeper understanding into the causes, signs and symptoms, management and prevention and management of her condition (severe malaria).

6.2 Conclusion

The study has equipped me with knowledge on how to care for a patient as an individual. Through this study, I have been able to put into practice actual and holistic nursing care as it has been learnt theoretically. The study provided a therapeutic environment for nursing patient as an individual and has promoted a good nurse-patient/family relationship as well as broadened my knowledge on severe malaria, its management and prevention. It is my recommendation that all students are given the opportunity to embark on the patient/family care study to implement the nursing process in order to render individualized comprehensive care to patients/families. In brief, I wholly enjoyed every part of writing this script despite the challenges encountered.

APPENDIX

Vital signs of Miss J.D

Vital signs on admission

Date	Time	Temperature(°C)	Pulse (Bpm)	Respiration (Cpm)	Blood Pressure (mmHg)
29/11/22	9:00pm	38.2	99	24	90/60
Vital Signs During Tepid Sponging					
29/11/22	9:00pm	38.2	99	24	90/60
	9:30pm	37.4	100	24	90/65
	10:00pm	37.3	128	27	98/65
	10:30pm	36.2	97	26	98/56
	11:00pm	36.8	65	27	98/55
	11:30pm	36.2	87	25	100/60
	12:00pm	36.6	92	26	92/55
30/11/22	6:00am	37.1	123	32	107/67
	10:00am	36.5	74	25	92/55
	2:00pm	36.8	72	26	91/62
	6:00pm	36.3	82	19	92/60
	10:00pm	36.6	86	20	100/64
01/12/22	6:00am	36.6	82	21	96/61

	10:00am	36.2	75	26	96/56
	2:00pm	36.0	82	20	110/60
	6:00pm	36.8	75	20	83/55
	10:00pm	36.3	74	18	91/61
02/12/22	6:00am	37.0	99	24	92/52
	10:00am	36.5	72	18	91/62

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