

**HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE,**

**BEREKUM**

**A PATIENT/ FAMILY CARE STUDY ON GASTRITIS**

**ADU-ADJEI MISPA FRANCISCA**

**4120190014**

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

**AUGUST, 2022**

## TABLE OF CONTENTS

### Contents

TABLE OF CONTENTS.....	ii
LIST OF TABLES.....	iv
PREFACE.....	v
ACKNOWLEDGEMENT.....	vi
INTRODUCTION.....	vii
CHAPTER ONE.....	1
ASSESSMENT OF PATIENT AND FAMILY.....	1
1.0 Introduction.....	1
1.1 Patient’s Particulars.....	1
1.2 Family Medical History.....	2
1.3 Family’s Socio-Economic History.....	2
1.4 Patient’s Developmental History.....	3
1.5 Obstetric History.....	5
1.6 Patients Lifestyle/Hobbies.....	5
1.7 Patient’s Past Medical/Surgical History.....	6
1.8 Patient’s Present Medical and Surgical History.....	7
1.9 Admission of the Patient.....	7
1.11 Literature Review.....	10
1.12 Validation Of Data.....	22
CHAPTER TWO.....	24
ANALYSIS OF DATA.....	24
2.0 Introduction.....	24
2.1 Comparison of Data with Standards.....	24
2.2 Patient Family Strength.....	33
2.3 Patient’s Health Problems.....	33
2.4 Nursing Diagnosis.....	34
CHAPTER THREE.....	35
PLANNING FOR PATIENT AND FAMILY CARE.....	35
3.0 Introduction.....	35

3.1 Objective for the Patient and Family Care.....	35
CHAPTER FOUR.....	44
IMPLEMENTATION OF PATIENT / FAMILY CARE STUDY.....	44
4.0 Introduction.....	44
4.1 Summary of the Actual Nursing Care Rendered.....	44
4.2 The Preparation of the Patient / Family for Discharge and Rehabilitation.....	54
CHAPTER FIVE .....	59
EVALUATION OF CARE RENDERED TO PATIENT .....	60
5.0 Introduction.....	60
5.2 Amendment of Nursing Care Plan for Partially met or Unmet Outcome Criteria.....	64
5.3 Termination of Care .....	64
CHAPTER SIX.....	65
SUMMARY OF CARE RENDERED TO PATIENT AND FAMILY .....	65
6.0 Introduction.....	65
6.1 Summary .....	65
6.2 Conclusion.....	67
REFERENCE.....	68
SIGNATORIES .....	<b>Error! Bookmark not defined.</b>

## LIST OF TABLES

Table 1: Diagnostic Tests/Investigation In Literature Review Compared With Those Carried Out On Madam B.E .....	26
Table 2: Diagnostic Investigations carried out on Madam B.E .....	27
Table 3: Clinical Features Exhibited by Madam B.E. Compared with those in the Literature Review .....	28
Table 4: Treatment Outlined in Literature Compared with those given to Patient.....	30
Table 5: Pharmacology of Drugs Given To Madam B.E.....	31
Table 6: Nursing care plan for Madam B.E.....	37
Table 7: Vital Signs of Madam B.E throughout admission.....	69

## **PREFACE**

Previously, nursing was just caring for the sick on the sick bed. The nursing profession began to change rapidly under the influence of Florence Nightingale. Nursing has changed from caring for the sick to include taking of medical history and conducting physical examination which was previously the duty of the medical doctor. According to Virginia Henderson, nursing is the process of assisting the individual either sick or well in the performance of those activities which contribute to health or peaceful death that he would have performed unaided if he had the necessary strength, will or knowledge and to do this in such a way as to help him gain independence and rapidly as possible. Due to modernization, nursing has been changed to a holistic and individual nursing care of a client by means of new techniques employed in the profession. To provide holistic and efficient nursing care to patient and family, the student nurse employs knowledge and skills in all areas of discipline, such as; psychology, sociology, surgery, pharmacology, public health and medicine to meet the needs of the client, family and community as a whole. Patient/Family care study is a written script on individualized nursing care rendered to a patient in relation to his disease condition at a specific period of time.

The care is based on the theoretical and practical experienced acquired by the student nurse through the three-year training. The study forms part of the assessment of the student nurse by the Nursing and Midwifery Council of Ghana for the award of Professional Diploma Certificate. The patient's care was carried out making use of the scientific approach to nursing care which is the nursing process. The study helps the student to gain knowledge in all areas of medical science to care for clients as individuals. The patient and family care study starts from the day of admission to the time of discharge and continue in the community to ensure optimum health through home visit. For the purpose of confidentiality, the name of my patient and family relatives were stated using initials throughout the care study.

## **ACKNOWLEDGEMENT**

I extend my outmost gratitude to patient Madam B.E and her family for giving me the opportunity to use her as the subject for this project and also for their co-operation during our interaction together.

Moreover, my appreciation goes to Monica Nkrumah, the principal of Holy Family Nursing and Midwifery Training College, Berekum and the entire tutorial board especially my supervisor Mr Edward Amponsah, for the guidelines and supervision in the writing of my care study successfully.

I take this opportunity to express my thanks to the General Ward in-charge, Doctors and other staff of St. Mary's Hospital, Drobo for the great support in the study.

I also own particular thanks to my dear parents Mr and Mrs.Adu-Adjei for their support spiritually and financially and to all my friends, especially my roommates. I say God richly bless you all.

Finally, to the authors and publishers of the text books from which information was retrieved to serve as a guide in writing this Patient/ Family Care Study, I say thank you.

## INTRODUCTION

This is a well documented report of interaction between myself and Madam B.E, a 54 year old woman who was admitted into the female's ward of St. Mary's Hospital, Drobo on the 11/011/2021 at 12pm with the diagnosis of Gastritis after presenting with abdominal pain and vomiting . On admission patient was weak and looked generally unwell. At the ward, patient was made comfortable in bed and nursing assessment was done to identify patient's problem. Vital signs were then checked and charted. The problems identified throughout period of patient's admission included Epigastric pain, Vomiting, Anxiety, loss of appetite, Insomnia and knowledge deficit. On admission till discharge, routine nursing care such as checking and charting of vital signs especially blood pressure, administration of medication, laying of patient's bed, education of patient on disease condition, applying cold compresses on patient's forehead and reassurance etc. were rendered on daily basis to ensure patient was cared for holistically. Patient was managed on the following medications.

Intravenous Omeprazole 80 mg stat and then 40mg bd x 24 hours, Suspension Nugal 15 mls three times daily x 5 days, Intravenous Metronidazole 500 mg tds x 2 days, Injection Buscopan 40 mg stat, Intravenous Metoclopramide 10mg stat, Intravenous DNS 500mls stat, Capsule Omeprazole 20 mg BD X 14 days, Tab Metronidazole 400 mg tds x 5 days and Tab paracetamol 1g tds x 5 days.

The following laboratory investigations were ordered, done and reviewed by the attending medical officer: Blood for Full blood count, Blood for malaria parasite, Serology testing for H. Pylori antibody, Stool routine examination and Gastroscopy. Gastroscopy which could not be done as a result of unavailability of gastroscopy machine in the facility.

During patient's stay at the hospital, a care plan was drawn with clear objectives, stated time frame and appropriate nursing interventions instituted to tackle each of the problems identified. All objectives set were fully met. Patient was discharged on the 15/11/2021 when she was deemed well and healthy by the medical doctor. Patient was prepared towards discharge from the first day of admission. Madam B.E. recovered within five days of admission without any complication and was scheduled.

In all patient was visited on three different occasions. The first home visit was paid while patient was still on admission to assess patient's home environment and to validate data given to me. The second home visit was to ensure patient was adhering to treatment regimen and to remind her of the review date. The third home visit was to terminate care and to hand over patient to community health nurse for continuation of care. During the home visits, education on patient's condition and its management, personal and environmental hygiene was done. Care was terminated on the 11/11/2021.

For clarity, the care study has been arranged as follows:

Chapter one (assessment) involves the collection of data about the patient and family. Chapter two (analysis/ Diagnosis) encompasses the organization of data about the patient and his family and review of literature on the condition. Chapter three (planning) has to do with the setting of specific objectives based on Identified problems and care plans made to achieve the set objectives. Chapter four (Implementation) comprises of the action phase of the care plan where a documentation of the nursing care given is done. Chapter five (Evaluation) covers the assessment of how effective and holistic the set objectives have been and the various procedures used in rendering nursing care. Finally chapter six details the summary of care of rendered to patient and family and also conclusion to the care study.

## **CHAPTER ONE**

### **ASSESSMENT OF PATIENT AND FAMILY**

#### **1.0 Introduction**

According to Weller (2014), assessment is the systematic collection of data to determine the patient's health status and any actual or potential health problems. This is the first step of nursing process and involves the systematic and continuous gathering of information about the patient and his/her family as well as the community in which he/she resides. Assessment is important because it helps the nurses to identify the patient's problems. It gives an idea about the patient's condition, needs and health problems which enables nurses to render efficient nursing care. The methods used in collecting the data include interviewing, information from patient's folder, observation, literature review, patient's relatives and medical team. It involves patient's particulars, patient's past medical history, socio-economic history, patient's developmental history, patient lifestyle and hobbies and finally patient's present medical history.

#### **1.1 Patient's Particulars**

Patient's particulars refer to factual demographic data about the patient. It include patient's name, address, age, sex, marital status, occupation, religious preference, health care financing, and usual source of medical care.

Madam B.E, the patient for this care study is a fifty four (54) year old woman born on 1<sup>st</sup> August, 1967 to Madam A.M and Mr. T.S. She is Bono by tribe and a Ghanaian. She speaks bono fluently. Patient is dark in complexion, her height is about 172cm and weighs 68kg on admission. She has no physical disability or any facial marking. Madam B.E. is the fourth child among seven siblings of her parents. Madam B.E is married to Mr. H.A and she has three children of which two are girls and one male, all alive. Patient reside at Komfourkrom, a town within the Jaman South Municipal,

where she lives with her husband Mr. H.A and her three children. Her house number is KF 22/JSM. Her next of kin is Mr. H.A, her husband. According to patient, she was educated up to form 4 but could not continue her education. Madam B.A is a farmer by occupation. Patient is a Christian and a member of the Presbyterian Church at Komfourkrom. Madam B.E is registered with the national health insurance scheme.

### **1.2 Family Medical History**

The Patient/Family's Medical History provides information about illness in patient's family which has a genetic origin (Weller, 2014).

Patient intimated that there are no known history of hereditary, infectious or chronic diseases such as Asthma, Diabetes mellitus, mental illness, epilepsy, hypertension tuberculosis and leprosy in the family. There are no known allergy to any food, drug or substance in the family.

However, they sometimes experience minor ailments like common cold, headache and diarrhoea which they treat by using over the counter drugs and they usually go to the hospital when symptoms persist for long period. They receive treatment usually at St. Mary's Hospital, Drobo using the national health insurance scheme. Patient affirmed that she has never been admitted to the hospital for any medical illness except when she was hospitalized on three occasions for delivery. Patient's parents and siblings are all alive and they do not suffer any chronic or non-communicable illness. All her grandparents are dead except her paternal grandfather.

### **1.3 Family's Socio-Economic History**

Madam B.E family lives harmoniously with each other as well as other people in the community. They support each other in times of need. According to Madam B.E, they are all registered members of National Health Insurance Scheme (NHIS) so they do not have problem whenever they visit the hospital. Madam B.E. has a family size of four; her husband, and her three children.

Madam B.E. is a farmer, who together with her husband cultivate cash crops such as cashew and cocoa but they are also involved in food crops such yam, plantain and cassava. Produce from their farm are sold at Drobo during market days. She is supported economically by her husband, and their eldest son, who is a taxi driver. Because of her occupation, patient is prone to cuts and insect bites and stinks. The income derived from their economic activities is used for the up keep of the family. In times of financial crisis patient is supported by members of her external family and sometimes friends. .

Madam B.E is a Christian and a member of the Presbyterian Church of Ghana. She worships at the Komfourkrom where she is an active member and the leader of the women group. As a Christian and a mother, she believes in discipline and hard work. She likes people who are hardworking and discipline and abhors those who are not.

#### **1.4 Patient's Developmental History.**

Developmental history is an account of how and when a person met developmental milestones such as walking and talking (medicinenet.com) Development is growth in function and capabilities, thus qualitative increase in an individual Weller (2014). Growth is a progressive increase in size of an individual, quantitative increase of an individual and Maturation is the process of development in which an individual reaches full functionality (Weller, 2014).

Patient was born at Komfourkrom in the Jaman South Municipal, Bono Region of Ghana. According to patient her mother told her that she was delivered spontaneously through the vagina after nine months gestation without any complication by a Traditional Birth Attendant (TBA).

Patient was never immunized against all the vaccine preventable diseases and there was no mark on her deltoid muscle to show proof of immunization. Madam B.E could not give a detailed account of her developmental milestone. She was told that she passed through the normal

developmental milestone thus sitting, crawling, standing, walking etc. without any setback and by age 12 months could walk without assistance.

She also said, she started developing secondary sexual characteristics at the age of 15 years with the development of pubic hair, enlargement of breast, menstruation and others. She started having menopausal symptoms at the age of forty-five (45) years.

According to patient she was educated up to form 4 but could not continue her education due to financial constraints. As part of her aspiration and career plan when she was growing up, her dream was to become a teacher which she couldn't because of lack of financial support during that period, currently she is a farmer. She married her husband, when she was 24 years old and had her first child when she was 25 years old. Currently, she has three children. Patient has few grey hair which she confirmed started coming when she was around 50years. Patient's teeth are all intact and her skin is minimally wrinkled.

According to Eric Erikson's psychosocial theory of development, there are eight distinct stages with each possible results, thus either success or failure personality.

1. Trust versus mistrust (birth to 1year)
2. Autonomy versus shame and doubt (2 to 3years)
3. Initiative versus guilt (3 to 5years)
4. Industry versus inferiority (6 to 11years)
5. Identity versus role confusion (12 to 18years)
6. Intimacy versus isolation (19 to 40years)
7. Generativity versus stagnation (40 to 65years)
8. Integrity versus despair (65 to death)

Madam B.E is within the seventh stage; generativity versus stagnation (40 to 65years) during adulthood, we establish our career, settle down within a relationship, begin our own families and develop a sense of being a part of a bigger picture. We give back to society through raising our children, being productive at work and becoming involved in community activities and organizations. By failing to achieve these objectives, we become stagnant and feel unproductive. Throughout interaction with patient, I found out that, she has achieved generativity because she has been able to contribute her part to the immediate family's upkeep and she is a women leader in her church. Patient is also proud that she and her husband has been able to educate their second and third born to tertiary institutions.

### **1.5 Obstetric History**

Madam B.E has had 4 pregnancies with which one was spontaneously aborted. She was able to deliver all her three children per spontaneous vagina delivery without any complications. Currently all three children are alive. She had her menopause at age 45 and has no history of the use of contraceptives. Patient does not have history of sexually transmitted disease such as gonorrhoea, syphilis, HIV/AIDS, among others. She does not suffer from breast or cervical cancer.

### **1.6 Patients Lifestyle/Hobbies**

Madam B.E is the outspoken type of person who does not exclude herself from social gatherings. She has a quite number of friends of which the most from her church. She always put on a smiling face which always makes people approach her easily. Madam B.E brushes her teeth twice a day, baths twice daily and keeps short well-kept nails. She wakes up around 5:30am each day except Sundays and goes to bed around 9:00pm at night after watching television with her family. She frequently goes to farm from Monday to Friday except on Tuesdays when she comes to Drobo to sell products from her farm. On Saturdays, she does her house chores such as washing, after which she attends social gatherings such as funerals, parties, weddings or naming ceremonies. She goes

to church on every Sunday unless she is sick and a women group leader she is very energetic in the activities of her church. She does not experience any difficulties in carrying out activities of daily living like eating, grooming, dressing and walking. According to Madam B.E, she attends to nature call whenever she feels the urge and hardly experience constipation. She is a non-smoker, do not like coffee and does not take illicit or recreational drugs but according to her, whenever she returns from farm and she is experiencing bodily pains she frequently takes over the counter drugs such as brufen and bought from a local pharmacy store. She takes normal three regular meals daily and cooks most of the time and has a great preference for spiced foods. She does not exercise regularly and likes watching local movies. She does not have any known allergies and her favorite food is fufu with palm-nut soup and snail. She is caring and uses non-verbal communication to speak to her children to desist from doing certain things. She worries a lot about her family's well-being and the educational outcome of her children and it is her highest priority that her children have education to the possible highest level. Personally, I think Madam B.E is an extrovert, caring and kind.

### **1.7 Patient's Past Medical/Surgical History**

According to Madam B.E, she has never been so sick to warrant hospitalization, but rarely suffers minor ailments such as headaches and body pains as a result of her work but she treats them using over the counter medications such as diclofenac and brufen and seeks outpatient treatments when such ailments become severe. She said her only periods of hospitalizations are during deliveries and she has never undergone any surgical procedure. She could not recall any childhood diseases such as whooping cough or measles. Despite her easy access to healthcare, she does not attend regular check-ups. Madam B.E has never had an accident and does not have any known allergies.

### **1.8 Patient's Present Medical and Surgical History**

Patient was apparently well until 10th November, 2021 when she started experiencing vague abdominal (epigastric) pains. The pains were initially intermittent but later became severe. The pain was associated with vomiting, a loss of appetite and a feeling of nausea which was gradual. On Friday the 11th of November, 2021, she was rushed to Out patient department of St. Mary's Hospital- Drobo where she was seen by Dr. A.M and diagnosed of gastritis and was then admitted to the female medical ward for treatment to be continued on the same day.

### **1.9 Admission of the Patient**

On 11<sup>th</sup> November, 2021 at 12pm, Madam B.E was admitted to the females' ward of the St Mary's' hospital, Drobo in a wheel chair from out- patient department accompanied by a nurse from the out patient department and patient's relative. Patient was conscious and well orientated to time, place and persons. Patient's folder was collected from the OPD nurse and her name was mentioned to ascertain and confirm the identity of the patient. Madam B.E was immediately made comfortable in an already prepared simple bed in females ward with bed number F6. Upon assessment patient complain of epigastric pains, headache and vomiting. It was also observed that patient was very anxious. I introduced myself to the patient and her accompanying relative. Madam B.E's. particulars were documented into the admission and discharge book and daily ward state.

Vital signs was checked and recorded as follows

Temperature	- 36.9 <sup>o</sup> c
Pulse	- 84bpm
Respiration	- 21cpm
Blood Pressure	- 110/60mmHg

SPO2 - 97%

Laboratory investigations requested on admission were

Blood for Full blood count

Blood for malaria parasite

Stool routine examination

Gastroscopy

Blood sample was taken, sample bottle labelled and sent to the laboratory for the investigations to be carried out.

The drugs below were prescribed for Madam B.E to treat her condition:

Intravenous Omeprazole 80 mg stat and then 40mg bd x 24 hours

Suspension Nugal 15 mls three times daily x 5 days

Intravenous Metronidazole 500 mg tds x 2 days

Injection Buscopan 40 mg stat

Intravenous Metoclopramide 10mg stat

Intravenous DNS 500mls stat

Drugs were collected from pharmacy. An intravenous cannula was inserted and intravenous medications commenced. Patient and relative were then informed about daily ward routine such as medication, ward rounds and visiting hours. Also patient was orientated to the ward and its environ. They were introduced to other patients at the ward, shown the toilet, bathroom and also to the nurses' station. Since there was no restroom in the ward, patient was encouraged to eat by Her bedside. Items to be used at the ward during their stay such as towel, bucket, spoon and bowl were also mentioned to the colleague who accompanied her to the ward.

After these interventions, permission was sought from the ward in-charge to use the patient for my case study and she agreed. After 30 minutes of admission, patient's husband Mr.H.A had come around. I then introduced myself to the patient/family that, I am a final year student nurse of Holy Family Hospital, Berekum, conducting a study at the hospital. I then made it known to them my desire to use Madam B.E for the care study. I made them to understand that it case study was part of the requirement by the nursing and midwifery council of Ghana in partial fulfilment towards the award of a diploma in general nursing. I further explained to them holistic care will be rendered to them to ensure speedy recovery. I told them that, as part of my training, final year students are to take a patient each, nurse him or her from the time of admission till time of discharge and home visits. The patient and family accepted and promised their cooperation and readiness to give me any information needed for my study. They were informed that her hospitalization was temporal and that she will be discharged as soon as her condition gets better. They were also informed that, as part of care, I would visit their home whiles patient was on admission and after she has been discharged. I choose to write a care study on gastritis because it is very common in women due to the risk of excessive use over the counter medication. I wanted to know more about this condition and to holistically nurse a patient who was suffering from this ailment and also to apply the lesson from the study to nursing other patient with same condition.

### **1.10 Patient Concept of Illness**

Madam B.E did not attribute her illness to any spiritual cause, though she did not know the specific cause(s) of the illness. She was anxious because it was the first time she was sick to warrant an admission . She was looking forward to a speedy recovery once she was receiving treatment so that she can be discharged home to continue her trade. I took this opportunity to educate her on gastritis; its causes, signs and symptoms, treatment, prevention and the need for the admission.

## **1.11 Literature Review**

### **Anatomy and Physiology of the Stomach**

According to Hinkle and Cheever (2014), the stomach is a muscular, hollow, dilated part of the digestion system which functions as an important organ of the digestive tract in some animals, including vertebrates, echinoderms, insects (mid-gut), and molluscs. It is involved in the second phase of digestion, following mastication (chewing). The stomach is located between the esophagus and the small intestine. It secretes protein-digesting enzymes and strong acids to aid in food digestion, (sent to it via oesophageal peristalsis) through smooth muscular contortions (called segmentation) before sending partially digested food (chyme) to the small intestines.

### **Role in Digestion**

According to Hinkle and Cheever (2014), bolus (masticated food) enters the stomach through the oesophagus via the oesophageal sphincter. The stomach releases proteases (protein-digesting enzymes such as pepsin) and hydrochloric acid, which kills or inhibits bacteria and provides the acidic pH of two for the proteases to work. Food is churned by the stomach through muscular contractions of the wall called peristalsis – reducing the volume of the fundus, before looping around the fundus and the body of stomach as the bolus is converted into chyme (partially digested food). Chyme slowly passes through the pyloric sphincter and into the duodenum, where the extraction of nutrients begins. Depending on the quantity and contents of the meal, the stomach will digest the food into chyme anywhere between forty minutes and a few hours.

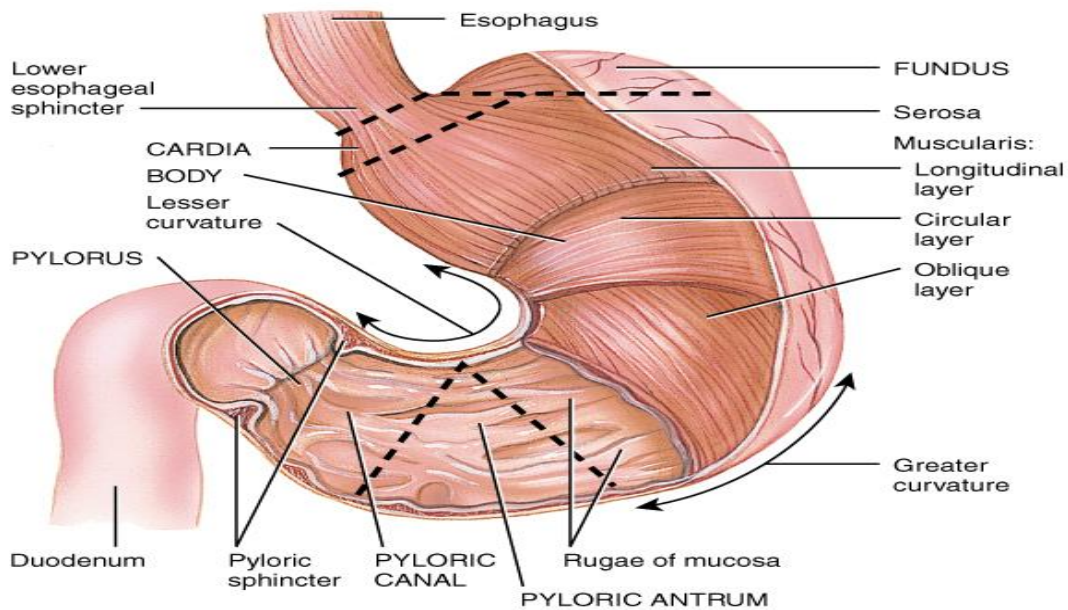
### **Anatomy of the Stomach**

According to Hinkle and Cheever (2014), the stomach lies between the esophagus and the duodenum (the first part of the small intestine). It is on the left upper part of the abdominal cavity. The top of the stomach lies against the diaphragm. Lying behind the stomach is the pancreas. The greater omentum hangs down from the greater curvature.

Greater omentum and stomach; Two sphincters keep the contents of the stomach contained. They are the esophageal sphincter (found in the cardiac region, not an anatomical sphincter) dividing the tract above, and the Pyloric sphincter dividing the stomach from the small intestine.

The stomach is surrounded by parasympathetic (stimulant) and orthosympathetic (inhibitor) plexuses (networks of blood vessels and nerves in the anterior gastric, posterior, superior and inferior, celiac and myenteric), which regulate both the secretions activity and the motor (motion) activity of its muscles. In adult humans, the stomach has a relaxed, near empty volume of about 45 ml. Because it is a distensible organ, it normally expands to hold about one litre of food, but can hold as much as two to three liters. The stomach of a newborn human baby will only be able to retain about 30 ml.

### Diagram of the Stomach



(Scalon and Sanders, 2010)

### Sections of the Stomach

According to Hinkle and Cheever (2014), the sections of the stomach include;

**Cardia** - The cardia is the anatomical term for the part of the stomach attached to the esophagus. The cardia begins immediately distal to the z-line of the gastroesophageal junction, where the squamous epithelium of the esophagus gives way to the columnar epithelium of the gastrointestinal tract.

**Fundus** - The fundus of the stomach is the left portion of the stomach's body, and is marked off from the remainder of the body by a plane passing horizontally through the cardiac orifice. As the rounded part of the upper stomach, it allows for an accumulation of stomach gases produced by chemical digestion. It will also store undigested food for up to 1 hour. It will also store undigested food for up to 1 hour.

**Body or Corpus** - The Body of the Stomach (Lat. corpus gastricum) often just called the body or corpus is an anatomical region of the stomach in humans. The boundaries of the body of the stomach are shown in the diagram to the right, with the dotted line stemming from the cardiac notch separating the body from the fundus, while the lower boundary is defined by a line perpendicular to the lesser curvature of the stomach from the angular notch. The line drawn from the angular notch thus divides the body of the stomach to yield an antrum section, which goes on to drain into the duodenum via the pyloric sphincter.

**Pylorus** - The pylorus; from the Greek, "gate guard" is the region of the stomach that connects to the duodenum (the beginning of the small intestines). It is divided into two parts:

A) The pyloric antrum, which connects to the body of the stomach.

B) The pyloric canal, which connects to the duodenum.

The pyloric sphincter, or valve, is a strong ring of smooth muscle at the end of the pyloric canal which lets food pass from the stomach to the duodenum. It receives sympathetic innervation from the celiac ganglion.

## **GASTRITIS**

Hinkle & Cheever (2014) describes gastritis as the inflammation of the gastric or stomach mucosa. It is a common gastrointestinal problem. It may be acute or chronic. The inflammation may be contained within one region or be patchy in many areas. Gastric structure and function are altered in either the epithelial or the glandular components of the gastric mucosa. The inflammation is usually limited to the mucosa but some forms involve the deeper layers of the gastric wall.

## **EPIDEMIOLOGY**

According to the Scalon & Sanders (2014), acute gastritis occurs in men more than women. Chronic gastritis occurs more frequently in women than in men. About 35% of adults are infected with *H. Pylori*.

## **TYPES**

Inkle & Cheever (2014), classifies gastritis into two major types:

1. Acute gastritis
2. Chronic gastritis

**Acute gastritis:** It is a term covering a broad spectrum of entities that induce inflammatory changes in the gastric mucosa. The inflammation may involve the entire stomach (e.g. pan gastritis) or a region of the stomach (e.g. antral gastritis). Acute gastritis can be sub-divided into 2 categories: erosive (e.g. superficial erosions, deep erosions, haemorrhagic erosions) and non-erosive, generally caused by *Helicobacter pylori*.

## **Causes**

The cause of true gastritis as discussed by Marilyn, Mary. & Alice (2012), are

1. *H. pylori* infection and is indicated in an average of 90% of gastritis cases

2. Chronic ingestion of (or an allergic reaction to) irritating foods or beverages, such as hot peppers or alcohol.
3. Drugs, such aspirin and other non-steroidal anti-inflammatory agents (in large doses), cytotoxic agents, corticosteroids, antimetabolites, phenylbutazone, and indomethacin. .
4. Ingestion of poisons, especially DDT, ammonia, mercury, carbon tetrachloride, and corrosive substances
5. Endotoxins released from infecting bacteria such as staphylococci, Escherichia coli, or Salmonella.

**Chronic gastritis:** According to Hinkle & Cheever (2014), it results from repeated exposure to irritating agents or recurring episodes of acute gastritis. Prolonged inflammation of the stomach may be caused either by benign or malignant ulcers of the stomach or by the bacteria *Helicobacter pylori*, may be associated with peptic ulcer disease or gastrectomy, both of which cause chronic reflux of pancreatic secretions, bile, and bile acids from the duodenum into the stomach. Recurring exposure to irritating substances, such as drugs, alcohol, cigarette smoke, or environmental agents, may also lead to chronic gastritis. Chronic gastritis may occur with pernicious anaemia, renal disease, or diabetes mellitus. Pernicious anaemia is commonly associated with atrophic gastritis, a chronic inflammation of the stomach resulting from degeneration of the gastric mucosa.

### **Risk Factors of gastritis**

The risk factors of gastritis are described by Hinkle & Cheever (2014) to include;

1. Infection with Helicobacter Pylori, AIDS, Herpes simplex virus or cytomegalovirus
2. Excessive use of NSAIDS
3. Alcoholism

4. Cigarette smoking
5. Inflammatory bowel disease
6. Stress

### **Pathophysiology**

The pathology as described by Hinkle & Cheever (2014) is that; normally, the gastrointestinal mucosa is protected by several distinct mechanisms:

- (1) Mucosal production of mucus and bicarbonate ( $\text{HCO}_3$ ) which creates a pH gradient from the gastric lumen (low pH) to the mucosa (neutral pH) with the mucus serving as a barrier to the diffusion of acid and pepsin
- (2) Epithelial cells remove excess hydrogen ions ( $\text{H}^+$ ) via membrane transport systems and have tight junctions, which prevent back diffusion of  $\text{H}^+$  ions.
- (3) Mucosal blood flow removes excess acid that has diffused across the epithelial layer.

In the presence of factors like stress, chemical substances, like drugs and alcohol, spicy foods, hot or sour foods, etc., there is sympathetic nerve stimulation, particularly that of the vagus nerve. The stimulation leads to increased production of hydrochloric acid in the stomach causing nausea, vomiting and anorexia. There is gastric mucosal cell exfoliation leading to erosion causing the gastric mucosa to lose its protective property. There is invasion of gastric mucosa and inflammatory reaction occurs. Mucosal cell loss cause bleeding. With constant irritation, tissues become inflamed. The gastric mucous membrane becomes oedematous and hyperaemic (congested with fluid and blood) and begin to undergo superficial erosion. It secretes scanty amount of gastric juice with very little acid but much mucous.

## **SIGNS AND SYMPTOMS**

According to the GHS (2014), symptoms include;

1. Epigastric pain
2. Headache
3. Nausea
4. Anorexia
5. Vomiting
6. Hiccapping, which can last from a few hours to a few days

## **Assessment and Diagnostic Findings**

According to Hinkle & Cheever (2014),Diagnosis can be determined by;

1. Clinical manifestation/ history taking
2. Upper gastro-intestinal radiography
3. Endoscopy of the gastric mucosa (Gastroscopy)
4. Histologic examination of a tissue specimen obtained by biopsy.
5. Serum vitamin B12 assessment
6. Serologic testing for antibodies to helicobacter Pylor

## **TREATMENT/MANAGEMENT**

### **AIMS:**

Waugh and Grant (2014) describes the aims of treating gastritis to include;

1. Reduce the amount of acid in the stomach and allow the stomach lining to heal
2. To relieve symptoms such as abdominal pains and reduce complications
3. To treat the underlying cause of the condition

4. To promote comfort

### **MEDICAL MANAGEMENT**

1. Proton pump inhibitors such as omeprazole, Esomeprazole, lansoprazole
2. Antibiotics to treat helicobacter pylori infection eg Amoksiclav, metronidazole
3. Intravenous fluids Dextrose Normal Saline (DNS) to correct electrolyte imbalance
4. Analgesics to relief pain. Eg. tramadol, paracetamol to relieve pain
5. Antacids to neutralize stomach acid content. Eg Aluminium hydroxide, Magnesium hydroxide
6. Histamine 2 (H2) Blockers which reduce gastric acid secretion. Eg Cimetidine, Ranitidine
7. Prostaglandin E1 Analogue e.g. Sulcrafate, Misoprostol (Cytotec) protects gastric mucosa against actions of gastric juice by acting as a barrier) may need to be administered.
8. Anti- emetics e.g. Phenergan to reduce vomiting.

### **NURSING MANAGEMENT**

Nursing management of gastritis is described by Hinkle & Cheever (2014) to include the following interventions;

#### **Reassuring the patient**

There is the need for continuous reassurance of patient and family about readiness of health care team to aid in treatment and the effectiveness of available medications and other supportive treatment modalities in bringing about speedy recovery and remission.

#### **Reducing Anxiety**

If the patient has ingested acids or alkalis, emergency measures may be necessary. The nurse offers supportive therapy to the patient and family during treatment and after the ingested acid or alkali has been neutralized or diluted. In some cases, the nurse may need to prepare the patient

for additional diagnostic studies (endoscopies) or surgery. The patient may be anxious because of pain and planned treatment modalities. The nurse uses a calm approach to assess the patient and to answer all questions as completely as possible. It is important to explain all procedures and treatments based on the patient's level of understanding.

### **Ensuring rest and sleep**

The following measures should be implemented to ensure good rest and comfortable sleep to promote recovery;

1. Restrict or limit visitors when necessary and explain to the patient the need for rest and sleep in aiding speedy recovery
2. The environment should be properly ventilated and noise minimized to promote rest and sleep.
3. Put patient in well prepared, comfortable bed and make sure bed is free from creases and cramps
4. Carry out bulk nursing when applicable
5. Encourage patient to take warm bath after meals and warm drinks before bed
6. If patient has pain-related insomnia, serve prescribed analgesics to relieve pain. Also serve prescribed hypnotics and sleep inducers and monitor for therapeutic and adverse effects.

### **Ensuring elimination**

Elimination needs in the patient with gastritis is equally important as is medications in recovery and remission of signs and symptoms. Assess patients' elimination pattern and monitor intake and output of patient. Monitor vomiting and observe vomitus for colour, consistency and content of the vomitus. If vomiting is persistent, prevent dehydration of patient by rehydrating with prescribed intravenous infusions. Administer prescribed anti-emetics and monitor for therapeutic and adverse effects. To prevent infection from elimination, ensure emesis basins, bed pans and commodes served patient to meet elimination needs, contain disinfectants and

such products of elimination are properly discarded.

### **Ensuring personal hygiene**

Ensure patients hygienic needs are equally met as other medical needs of the patient are established. The following measures can be followed;

1. Ensure patient takes his/her bath twice a day. Assist or carry out bed bath when necessary
2. Encourage patient to maintain adequate mouth care by brushing his/her teeth at least twice in a day
3. Teach and encourage patient and relatives to observe hand washing techniques after visiting the toilet or coming into contact with patient fluids such as vomitus to prevent spread of *Helicobacter pylori* bacteria.
4. Ensure patient keeps a short and well-kept nails. Carry out hand and feet care when necessary.

### **Observation and monitoring**

1. Continuously monitor vital signs including temperature, pulse, respiration and blood pressure and intervene when appropriate
2. Monitor strict intake and output especially when vomiting persists
3. Monitor patient for therapeutic and adverse effects of administered medications
4. Assess and monitor patient for signs and symptoms of dehydration including, loss of skin turgor, dry mouth and persistent complains of thirst.

### **Relieving Pain**

Measures to help relieve pain include instructing the patient to avoid foods and beverages that may be irritating to the gastric mucosa and instructing the patient about the correct use of medications to relieve chronic gastritis. The nurse must regularly assess the patient's level of pain and the extent

of comfort achieved through the use of medications and avoidance of irritating substances.

### **Promoting Fluid Balance**

Daily fluid intake and output are monitored to detect early signs of dehydration (minimal fluid intake of 1.5 L/day, minimal output of 30 mL/h). If food and oral fluids are withheld, IV fluids (3 L/day) usually are prescribed and a record of fluid intake plus caloric value (1 L of 5% dextrose in water 170 calories of carbohydrate) needs to be maintained. Electrolyte values (sodium, potassium, chloride) are assessed every 24 hours to detect any imbalance. The nurse must always be alert for any indicators of haemorrhagic gastritis, which include hematemesis (vomiting of blood), tachycardia, and hypotension. If these occur, the physician is notified and the patient's vital signs are monitored as the patient's condition warrants.

### **Promoting Optimal Nutrition**

For acute gastritis, the nurse provides physical and emotional support and helps the patient manage the symptoms, which may include nausea, vomiting, heartburn, and fatigue. The patient should take no foods or fluids by mouth (possibly for a few days) until the acute symptoms subside if possible, thus allowing the gastric mucosa to heal. If intravenous therapy is necessary, the nurse monitors fluid intake and output along with serum electrolyte values. After the symptoms subside, the nurse may offer the patient ice chips followed by clear liquids.

Introducing solid food as soon as possible may provide adequate oral nutrition, decrease the need for intravenous therapy, and minimize irritation to the gastric mucosa. As food is introduced, the nurse evaluates and reports any symptoms that suggest a repeat episode of gastritis. The nurse discourages the intake of caffeinated beverages, because caffeine is a central nervous system stimulant that increases gastric activity and pepsin secretion. It also is important to discourage

alcohol use. Discouraging cigarette smoking is important because nicotine reduces the secretion of pancreatic bicarbonate, which inhibits the neutralization of gastric acid in the duodenum.

When appropriate, the nurse initiates and refers the patient for alcohol counseling and smoking cessation programs. Also ensure patient takes in a bland diet and serve small meals at frequent intervals.

### **Nutrition and dietary Supplements**

Following these nutritional tips may help reduce symptoms:

1. Eating antioxidant foods, including fruits (such as blueberries, cherries and tomatoes), and vegetables (such as garden eggs and cucumber)
2. Intake of foods high in B vitamins and calcium, such as almonds, beans, whole grains (if non-allergic), dark leafy greens (such as spinach and kale) and sea vegetables
3. Avoid refined foods such as white breads, pastas, and sugar
4. Use healthy oils, such as olive oil
5. Reduce or eliminate trans-fatty acids, found in commercially-baked goods, such as cookies, crackers, cakes, onion rings, donuts and margarine.
6. Avoid beverages that may irritate the stomach lining or increase acid production including coffee (with or without caffeine), alcohol and carbonated beverages.
7. Drink 6 to 8 glasses of filtered water daily

### **Education**

1. Educate patient/family about the condition
2. Educate patient/family on the need to take prescribed medications
3. Educate patient/family on the restriction of offending agents like alcohol or highly seasoned foods

4. Educate patient on the need to ensure rest
5. Educate patient/family on the need for follow-up

### **Prevention**

According to Ferris (2012), prevention of gastritis include

1. Wash your hands with soap and water regularly and before meals. This can reduce the risk of being infected with *helicobacter pylori*
2. Cook foods thoroughly. This also reduces the risk of infection
3. Avoid alcohol or limit your alcohol intake
4. Avoid NSAIDs or only use them infrequently. Consume NSAIDs with food and water to avoid symptoms.

### **Complications**

The complications of gastritis were described by Hinkle & Cheever (2014) to include;

1. Stomach Ulcer mostly from chronic gastritis
2. Anaemia (Vitamin B12 deficiency anaemia): This occurs as a result of destruction of intrinsic factors.
3. Pyloric stenosis mostly occurs from malignant changes of gastric mucosa
4. Malignant changes of gastric mucosa
5. Haemorrhage or bleeding from an erosion or ulcer
6. Gastric Outlet Obstruction due oedema limiting the adequate transfer of food from the stomach to the small intestine
7. Dehydration from vomiting

### **1.12 Validation of Data**

This is the act of confirming data collected from patient, family members and significant others.

The data collected was cross checked with that from the literature review, medical records, nurses

note and signs and symptoms presented by the patient. It was found out that all the information gathered correspond with each other. For example, patient exhibited most of the signs and symptoms of the condition in the literature review. It is therefore clear that there is no error or misinterpretation of information.

Hence the data is valid.

## **CHAPTER TWO**

### **ANALYSIS OF DATA**

#### **2.0 Introduction**

This is the second step based on the nursing process. It is a detailed examination of the data collected from patient and family. Information gathered during the assessment phase is digested to enable the nurse identify the patient's actual and potential health problems.

This helps the nurse to priorities the patient's health problems; formulate appropriate nursing interventions as well as health education with respect to the existing problems.

The components of analysis of data are

1. Comparison of data with standards
2. Health problems
3. Patient/family strengths
4. Nursing diagnoses

#### **2.1 Comparison of Data with Standards**

This is where the data collected on the health of the patient is compared with those in the Literature review. These include

- a. Diagnostic investigation
- b. Causes
- c. Signs and symptoms (clinical features).
- d. Treatment
- e. Complications.

### **A.Diagnostic Investigations/Tests**

A diagnostic test is any kind of medical test performed to aid in the diagnosis or detection of disease, injury or any other medical condition, to monitor a person's health, disease or the effectiveness of treatment.

The following investigations were ordered to be carried on patient to aid in the diagnosis and treatment;

Blood for Full blood count

Blood for malaria parasite

Serology testing for H. Pylori antibody

Stool routine examination

Gastroscopy

Table 1 below shows the Comparism of diagnostic tests carried out on Madam B.E with those listed in literature review

**Table 1: Diagnostic Tests/Investigation In Literature Review Compared With Those Carried Out On Madam B.E**

<b>DIAGNOSTIC TESTS OUTLINED IN LITERATURE REVIEW</b>	<b>DIAGNOSTIC TESTS CARRIED OUT ON PATIENT</b>
Upper gastro-intestinal radiography	Investigation was not requested for patient
Stool for routine examination	Test was requested and done
Histologic examination of a biopsy tissue specimen	Test was not requested for patient
Serology testing (H. pylori antigen)	Test was ordered for patient
Endoscopy of the gastric mucosa (Gastroscopy)	Investigation was ordered for patient
Serum vitamin B12 assessment	Test was not requested for patient

On the day of admission, blood sample was taken and sent to the laboratory for full blood count and serology testing to identify any infection and infection with H. Pylori respectively. Stool specimen for routine examination was also taken to identify any infection and occult bleeding. Although gastroscopy was ordered, due to unavailability of gastroscopy test machine and the cost of doing it Sunyani patient could not afford it for test to be carried out.

Details of the test carried out on patient have been presented in table 2.

**Table 2: Diagnostic Investigations carried out on Madam B.E**

DATE	SPECIMEN	INVESTIGATION	RESULTS	NORMAL VALUES	INTERPRETATION	REMARKS
11/11/2021	Blood.	Haemoglobin level estimation (HB)	12.6g/dl	Female:12.0-16.0g /dl Male:13-18g/dl	Haemoglobin level was within the normal range	No treatment was given
11/11/2021		White blood cell count (WBC)	$5.9 \times 10^9$ /ul	Males: 4.00-11.00 $\times 10^9$ /ul Females: 4.00-11.00 $\times 10^9$ /ul	Within the normal range indicating no infection	No treatment was given
11/11/2021		Red blood cell count (RBC)	$5.05 \times 10^6$ /ul	Male: 4.35-5.65 x $10^6$ /ul Female: 3.92-5.13 x $10^6$ /ul	Result is within normal	No treatment was given
11/11/2021	Blood	Malaria Parasite	No parasite was seen (Negative)	No Malaria parasite should be seen	No malaria infection	No treatment was given
11/11/2021	Stool	Stool for routine examination (RE)	Macroscopic: Formed specimen Microscopic: no Intestinal spiral flagellates seen	Stool should be formed and no intestinal flagellate must be seen	Normal stool	No treatment was given
11/11/2021	Blood	Serology Test for H.Pylori	Negative	Negative	Absence of infection of H. Pylori antigen	No treatment given

All laboratory investigations ordered were carried out except gastroscopy due to financial problems on the patient's part.

**a. Causes**

With reference to the literature review, the risk factors of gastritis are excessive smoking, excessive intake of alcohol, NSAIDS, inflammatory bowel disease and infection with H.Pylori.

In the case of Madam B.E it can be suggested that her indiscriminate use of NSAID any time she experiences bodily pain predisposed her to gastritis.

**b. Clinical features/ signs and symptoms**

Comparison of clinical features exhibited by patients with those listed in the literature review.

Table 3 below shows the comparison of clinical features outlined in literature and those exhibited by patient.

**Table 3: Clinical Features Exhibited by Madam B.E. Compared with those in the Literature Review**

<b>CLINICAL FEATURES OUTLINED IN LITERATURE REVIEW</b>	<b>CLINICAL FEATURES EXHIBITED BY PATIENT</b>
There is anorexia(loss of appetite) and nausea	Patient complained of anorexia(loss of appetite)
Epigastric pain	Patient complained of epigastric pain occurring 1-2 hours after going to bed
Vomiting (normally undigested food)	Vomiting complained of vomiting
Hiccapping	Hiccapping was absent
Headache	Patient complained of headache

The table indicates that the patient exhibited most of the clinical manifestations stated in the literature review and did not exhibit some. The patient did not exhibit some of the signs and symptoms because she reported early and the condition was managed promptly.

### c. **Treatment Of Patient**

Treatment is referred to as a therapy intended to stabilize or reverse a morbid process or state. Treatment may be pharmacologic, using drugs; surgical, involving operative procedures; or supportive, building the patient's strength. It may be specific for the disorder, or symptomatic to relieve symptoms without affecting a cure. The drugs below were prescribed for Madam B.E to treat her condition.

Intravenous Omeprazole 80 mg stat and then 40mg bd x 24 hours

Suspension Nugal 15 mls three times daily x 5 days

Intravenous Metronidazole 500 mg tds x 2 days

Injection Buscopan 40 mg stat

Intravenous Metoclopramide 10mg stat

Intravenous DNS 500mls stat

Capsule Omeprazole 20 mg BD X 14 days

Tab Metronidazole 400 mg tds X 5 days

Tab paracetamol 1g tds X 5 days

Table 4 shows the treatment given to patient compared with those in literature review.

**Table 4: Treatment Outlined in Literature Compared with those given to Patient.**

<b>Treatment outlined in the literature review</b>	<b>Treatment given to patient</b>
Proton Pump Inhibitors (PPI): example; Omeprazole, Esomeprazole, Rabeprazole.	Intravenous and Capsule Omeprazole was given to patient.
Antacids: example; Aluminum Hydroxide, Magnesium Tricilate, Nugal.	Suspension Nugal was given to patient.
Antispasmodic eg Buscopam	IM Buscopam was prescribed
Anti-biotics: example; Metronidazole, Amoxicillin, Amoxiclav.	Intravenous and tab Metronidazole were all prescribed
Histamine 2 (H <sub>2</sub> ) Receptors Antagonists: example; Ranitine, Cimetidine.	No Anti Histamine drug was given
Analgesics: example; Paracetamol.	Tablet Paracetamol was given
Prostaglandin E1 Analogue e.g. Sulcrafate, Misoprostol (Cytotec)	Prostaglandin analogues were not prescribed
Intravenous fluid eg Dextrose Normal Saline	IV DNS 500 ml stat was administered

Table 4 above shows that the treatment that was given to patient was found in the literature review which confirmed patient was given the right treatment.

**Table 5: Pharmacology of Drugs Given To Madam B.E.**

<b>Drug</b>	<b>Standard Dosage and Route</b>	<b>Dosage/ Route of administration</b>	<b>Classification</b>	<b>Desire action</b>	<b>Actual action Observed</b>	<b>Side effect</b>	<b>Remarks</b>
Omeprazole	Adult Dose: 20mg daily for 4 weeks in duodenal ulcer and for 8 weeks in gastric ulcer. Route: Orally  40 mg 12 hourly for up to 5 days Route: Intravenous	80mg stat Intravenous, then 40mg bd x 2  20mg twice daily x 14 days, orally	Proton pump inhibitor anti-secretary agent	Reduces hydrochloric acid secretion	Patient 's condition improved due to reduction in her abdominal pains	Headache, constipation, diarrhea, nausea and vomiting.	None of the side effects was observed
Suspension Nugal	Adult: Dose: 15 ml 8 hourly daily Route: Orally	15mls three times daily for 7 days Orally	Antacid suspension	Provides a protective coating on the stomach lining and lowering acid level.	Help to reduce acid content in the stomach and relieved patient of pain	Constipation, diarrhea.	None of these was observed
Metronidazole (Flagyl)	Dosage: 400-800mg three times daily. Route: oral and IV	500mg tds 24 hours Route: Intravenous  400mg tds x 5 days Route : orally	Antimicrobial	To fight and kill bacteria	Patient was free from infection or bacteria	Vomiting, insomnia, dark urine.	None of these was observed
Metoclopramide	Metoclopramide, IM or IV, 5-10 mg 8 hourly	10mg stat Route: Intravenous	Antiemetic	Inhibits presynaptic and postsynaptic receptors on gastric muscles thereby preventing vomiting.	Vomiting subsided	Restlessness, dizziness, tiredness, headache and confusion	None was observed

**Table 5: Pharmacology Of Drugs Given To Madam B.E continued**

<b>Drug</b>	<b>Standard Dosage and Route of Administration</b>	<b>Dosage/ Route of administration</b>	<b>Classification</b>	<b>Desire action</b>	<b>Actual action Observed</b>	<b>Side effect</b>	<b>Remarks</b>
Buscopam	Dosage available intramuscularly 20mg, repeated after half an hour. It is given orally	40mg bd for 24 hours	Antispasmodics	It helps relieve one from gastro-intestinal disorder characterized by smooth muscle spasm.	Gastrointestinal disorders was minimize	Constipation, dry mouth, palpitation and arrhythmias.	None of these was observed
Dextrose in Sodium Chloride	Adults Dose:70 ml/kg body weight; Route: Intravenous	500mls for 24 hours	Isotonic solution	To correct dehydration and maintain electrolyte balance	Patient fluid and electrolyte balance was maintained	Circulatory overload, pulmonary oedema.	None observed
Paracetamol	Adult: 500 mg–1 g tid daily Route :Orally	1g three times daily x 5 days, orally	Analgesics, antipyretic	To relieve headache, bodily pains and reduce high body temperature	Patient responded to treatment	Hypoglycemic coma, liver damage, and erythematous skin reaction, leucopenia.	None of the side effects was observed

#### **d. Complications**

With reference to the complications stated under the literature review, patient did not develop any of the complications as stated in the literature review because she reported to the hospital early, rightly diagnosed and received the right treatment and holistic care from the hospital staff.

#### **2.2. Patient Family Strength**

According to Harvey (2014), this involves activities the patient can perform and those the family can also perform in helping the patient recover. The under mentioned strengths were observed on patient and her family.

1. Patient epigastric pain reduced when she assumes lateral position.
2. Patient could take in fluid diet
3. Patient could eat about 50mls of porridge served.
4. Patient/family could express the level of anxiety and participate in patient care.
5. Patient could sleep for about 4 hours at night.
6. Patient and family were willing to learn about disease condition

#### **2.3. Patient's Health Problems**

According to Harvey (2014), a health problem is an unmet health need to which the patient responds in a variety of ways. The following problems were identified in patient and family.

1. Patient had epigastric pain
2. Patient complained of vomiting
3. Patient had loss of appetite
4. Patient and family were anxious
5. Patient had insomnia
6. Patient and family had inadequate knowledge on the disease condition

## **2.4. Nursing Diagnosis**

According to Hinkle and Cheever (2014), nursing diagnosis is the organization, analysis, synthesis and summarization of data collected and determined the patient need for care.

Nursing diagnosis for Madam B.E.is as follows;

1. Acute pain (epigastric)related to ulceration of the stomach mucosa
2. Risk for fluid volume deficit related to vomiting
3. Imbalance nutritional pattern (less than body requirement) related to loss of appetite.
4. Anxiety related to unknown outcome of disease condition.
5. Sleeping pattern disturbance (insomnia) related to abdominal pain.
6. Deficient Knowledge related to inadequate information on the disease condition

## **CHAPTER THREE**

### **PLANNING FOR PATIENT AND FAMILY CARE**

#### **3.0 Introduction**

According to Hinkle and Cheever (2014), planning is the development of goals and outcomes as well as a plan of care designed to assist the patient in resolving the diagnosed problems and achieving the identified goals and desired outcomes.

It involves setting of objectives into short and long term in order of priority which is part of the nursing care process and if they are not met after implementation, then it means the care rendered had to be reassigned and new plan of action has to be taken to help meet the problems that were not met.

#### **3.1 Objective for the Patient and Family Care.**

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

1. Patient will be relieved of epigastric pain within 48 hours as evidenced by;
  - a. Patient verbalizing that she no longer feels the pain
  - b. Nurse observing that patient has a relaxed facial expression
2. Patient will be relieved of vomiting within 24 hours as evidenced by;
  - a. Patient verbalizing that nausea and vomiting has ceased.
  - b. Patient having normal skin turgor
3. Patient will regain her normal eating pattern within 48 hours as evidenced by;
  - a. Patient verbalizing she has regained her normal appetite.
  - b. Nurse observing patient eat more than half of the food served
4. Patient will be relieved of anxiety within 24 hours as evidenced by;
  - a. Patient verbalizing that she is relieved of anxiety
  - b. Nurse observing a relaxed facial expression.

5. Patient will regain her normal sleep pattern within the period of hospitalization as evidenced by;

- a. Nurse observing patient sleep for about 6-8 hours without interruption
- b. Patient telling the nurse she was able to have uninterrupted sleep throughout the night.

6. Patient and family will gain adequate knowledge on the disease condition within 24 hours as evidenced by;

- a. Nurse observing Patient / family being able to answer some questions on gastritis correctly
- b. Patient/family verbalizing understanding on the information given them.

Table 6 below shows the nursing care plan for Madam B.E

**Table 6: Nursing care plan for Madam B.E**

<b>DATE/ TIME</b>	<b>NURSING DIAGNOSES</b>	<b>OBJECTIVE/ OUTCOME CRITERIA</b>	<b>NURSING ORDERS</b>	<b>NURSING INTERVENTIONS</b>	<b>DATE/ TIME</b>	<b>EVALUATION</b>	<b>SIGN</b>
11/11 /2021 12:30 pm	Acute Pain (epigastric) related to ulceration of the stomach mucosa	Patient will be relieved of epigastric pain within 48 hours as evidenced by;  1. Patient verbalizing that she no longer feels the pain  2. Nurse observing that patient has a relaxed facial expression	1. Reassure patient  2. Put patient in a comfortable position  3. Assess patient level of pain  4. Identify food that exacerbate patient's condition.	1.Patient was reassured that she will be relieved of abdominal pain with holistic care been rendered.  2.Patient was put in lateral position as she felt comfortable and relieved from abdominal pain in that position  3.Patient's level of pain was assessed with a pain rating scale and it recorded 7 showing a severe pain  4.Food that worsens patient's condition such as pepper, spicy food were identified and patient was discourage form taking it.	13/11/20 21 12:30P m	Goal fully met as;  1.Nurse observed that patient is relaxed, looked comfortable and has cheerful facial expression in bed without complains of epigastric pain  2. Patient verbalized that she does not feel the pain anymore.	

			<p>5. Reduce noise and improve ventilation at the ward</p> <p>6. Administer prescribed medications</p>	<p>5.Noiseless environment was provided by lowering the volume of the ward television</p> <p>6.Prescribed drugs such as IM Buscopam 40mg and Suspension Nugal were administered to relieve patient of pain.</p>			
--	--	--	--	---	--	--	--

**Table 6: Nursing care plan for Madam B.E Cont'd**

<b>Date / Time</b>	<b>Nursing diagnosis</b>	<b>Objectives/Outcome criteria</b>	<b>Nursing orders</b>	<b>Nursing interventions</b>	<b>Date /Time</b>	<b>Evaluation</b>	<b>Sign</b>
11/11 /2021 12:35pm	Risk for fluid volume deficit related to vomiting.	Patient will retain a normal fluid volume within 24 hours as evidenced by; 1. Patient verbalizing that nausea and vomiting has ceased. 2. Patient having normal skin turgor.	1. Reassure patient/family. 2. Observe patient for signs of dehydration. 3. Maintain and keep strict intake and output. 4. Encourage patient to drink about 2-3 litres of fluid per day. 5. Provide frequent oral care for patient. 6. Encourage patient to take fluid diet	1. Patient/family were reassured that she is in the hands of health team and that all measures will be put in place to reduce vomiting 2. Patient was observed for signs of dehydration such as skin turgor and the appearance of the skin. 3. Patient's intake and output was maintained in the chart and it was balanced at the end of each 24 hours. 4. Patient was encourage to drink about 2-3 litres of fluid per day to replace fluid loss. 5. Frequent oral care was provided for patient to replace fluid loss. 6. Fluid diet such as porridge was served to patient in small bit frequently.	12/11/ 2021 12:35Pm	Goal fully met as patient take in copious liberal fluids to regain lost fluids. Patient showed no sign of dehydration	

**Table 6: Nursing care plan for Madam B.E Cont'd**

<b>DATE/ TIME</b>	<b>NURSING DIAGNOSES</b>	<b>OBJECTIVE/ OUTCOME CRITERIA</b>	<b>NURSING ORDERS</b>	<b>NURSING INTERVENTIONS</b>	<b>DATE/ TIME</b>	<b>EVALUATION</b>	<b>SIGN</b>
11/11 /2021 12:40 pm	Imbalance  nutritional  pattern (less than  body  requirement)  related to nausea	Patient will regain  her normal eating  pattern within 48  hour as evidenced  by;  1.Patient verbalizing  she has regained  her normal  appetite.  2.Nurse observing  patient eat more  than half of the  food served.	1. Reassure patient that she will  gain back her appetite  2. Maintain patient's oral  hygiene  3. Remove all items that are  unpleasant before meal.  4. Serve liquid easily digestible  foods like juice, milo and  porridge.  5. Serve food according to  patient's preference.  6. Assess patient nutritional  status.	1.Patient was reassured that she  will gain back her appetite  2.Patient's oral hygiene was  maintained  3.Items that are unpleasant were  removed before meal  4.Liquid digestible foods like  juice, milo and porridge were  served  5.Food was served according to  patient's preference  6. Patient nutritional status was  assessed.'	13/11  /2021  12:40  pm	Goal fully met as;  1.Patient verbalized  she can eat more  than half of the  bowl served  2.Nurse observed  patient eat more  than half of food  served.	

**Table 6: Nursing care plan for Madam B.E Cont'd**

<b>DATE/ TIME</b>	<b>NURSING DIAGNOSES</b>	<b>OBJECTIVE/ OUTCOME CRITERIA</b>	<b>NURSING ORDERS</b>	<b>NURSING INTERVENTIONS</b>	<b>DATE/ TIME</b>	<b>EVALUATION</b>	<b>SIGN</b>
11/11 /2021 1:00pm	Anxiety related to unknown outcome of condition	Patient will be relieved of anxiety within 24hours as evidenced by; 1. Patient verbalizing that she is relieved of anxiety 2.Nurse observing a relaxed facial expression.	1.Reassure patient 2.Allow patient to express her feelings 3.Explain every process to patient 4.Provide divertional therapy 5.Allow patient to ask questions and answer them in simple terms 6.Educate patient and relatives on the condition 7.Check vital signs and record	1.Patient was reassured of the competent nurses 2. Patient was allowed to express her fears about outcome of condition 3. Every procedure was explained to patient to ensure her cooperation. 4. Divertional therapy was provided such as watching television 5. Patient was allowed to ask questions and was answered in simple terms for her to understand. 6. Patient and relatives were educated on the condition 7. Vital signs was checked and recorded to identify any physiological indicators of anxiety such as high pulse rate.	12/11 /2021 1:00pm	Goal fully met as; 1.Patient told the nurse that she had no fears 2.The nurse observed that patient has relaxed facial expression	

**Table 6: Nursing care plan for Madam B.E Cont'd**

<b>DATE/ TIME</b>	<b>NURSING DIAGNOSES</b>	<b>OBJECTIVE/ OUTCOME CRITERIA</b>	<b>NURSING ORDERS</b>	<b>NURSING INTERVENTIONS</b>	<b>DATE/ TIME</b>	<b>EVALUATION</b>	<b>SIGN</b>
12/11/ 2021 08:00am	Sleeping pattern disturbances (Insomnia) related to abdominal pain.	<p>Patient will regain her normal sleep pattern throughout the period of hospitalization as evidenced by;</p> <p>1. Nurse observing patient sleep for about 6-8 hours without interruption</p> <p>2. Patient telling the nurse she was able to have uninterrupted sleep throughout the night.</p>	<p>1. Reassure patient.</p> <p>2. Serve warm beverages like milo drink to induce sleep</p> <p>3. Ensure adequate ventilation</p> <p>4. Reduce noise at the ward</p> <p>5. Plan nursing activities to be performed on the patient together</p> <p>6. Ensure warm bath before sleep</p> <p>7. Reduce the number of visitors during sleep hours</p>	<p>1. Patient was reassured of recovering peacefully</p> <p>2. Warm beverages like milo was served to induce sleep</p> <p>3. Adequate ventilation was ensured during sleeping hours and switching on fan to induce sleep</p> <p>4. Noise was reduced by minimizing television volumes</p> <p>5. Nursing activities were planned together to avoid disturbing the patient</p> <p>6. Warm bath was ensured to enable good sleep.</p> <p>7. The number of visitors were reduced during sleep hours</p>	15/11/ 2021 08:00am	<p>Goal fully met as;</p> <p>1. Nurse observed patient sleeping throughout the night uninterrupted</p> <p>2. Patient verbalized she had uninterrupted sleep.</p>	

**Table 6: Nursing care plan for Madam B.E Cont'd**

<b>Date/ Time</b>	<b>Nursing diagnosis</b>	<b>Objectives/Outcome criteria</b>	<b>Nursing orders</b>	<b>Nursing interventions</b>	<b>Date/ Time</b>	<b>Evaluation</b>	<b>Sign</b>
13/11/2021 10am	Knowledge deficit related to lack of inadequate information on causes, signs and symptoms and prevention of disease condition (Gastritis).	Patient will gain adequate knowledge on the disease condition within 24hours as evidenced by; 1. Nurse observing Patient / family being able to answer some questions on Gastritis correctly and 2.Patient/family verbalizing understanding on the information given them.	1.Reassure patient /family that with detailed information they will have understanding of Gastritis 2.Schedule time with patient and relatives to educate them on Gastritis. 3.Make patient comfortable by lying in bed while relatives and the nurse sit by bedside. 4.Assess patient and family knowledge level on Gastritis 5.Correct any misconception and provide accurate information on the predisposing causes, signs and symptoms, prevention, drug management and lifestyle modification 6.Invite questions and answer them tactfully. 7. Give patient pamphlets on Gastritis to read	1. Patient /family were reassured that detailed information on Gastritis will be given for better understanding. 2. Time was scheduled with patient and relatives to educate them on Gastritis. 3. Patient was made comfortable by lying in bed while relatives and the nurse sit by bedside. 4. Patient and family knowledge on Gastritis was assessed. 5. Accurate information on the predisposing causes, signs and symptoms, prevention, drug management and lifestyle modification were provided to correct misconceptions 6. Questions were invited and tactfully answered. 7. Pamphlets on Gastritis were given to patient	14/11/21 10am	Goal fully met as patient and family gave correct answers to questions asked on Gastritis and patient/ family verbalizing understanding on the information given them	

## **CHAPTER FOUR**

### **IMPLEMENTATION OF PATIENT / FAMILY CARE STUDY**

#### **4.0 Introduction**

Implementation is the fourth phase of the nursing process signifying the giving of care in relation to defined nursing interventions and goals. During implementation the nursing care plan is tested for effectiveness and accuracy. Data gathering continues and plans may change on the basis of new information obtained. The implementation phase concludes with recording of the activities performed and the response of the patient. (Weller, 2014)

#### **4.1 Summary of the Actual Nursing Care Rendered.**

The actual nursing care rendered to Madam B.E started from her first day of admission which was 11/11/2021 during hospitalization, visit to her home while on admission and after discharged home, day of discharged and review day has been summarized.

##### **4.1.1 Day of Admission: 11/11/2021**

On 11<sup>th</sup> November, 2021 at 12pm, Madam B.E was admitted to the females' ward of the St Mary's Hospital, Drobo in a wheel chair from out-patient department accompanied by a nurse from the out patient department and patient's relative. Patient was conscious and well orientated to time, place and persons. Patient's folder was collected from the OPD nurse and her name was mentioned to ascertain and confirm the identity of the patient. Madam B.E was immediately made comfortable in an already prepared simple bed in females ward with bed number F6. Upon assessment patient complain of epigastric pains, headache and vomiting. It was also observed that patient was very anxious. I introduced myself to the patient and her accompanying relative. Madam B.E's particulars were documented into the admission and discharge book and daily ward state.

Vital signs was checked and recorded as follows

Temperature - 36.9<sup>o</sup>c  
Pulse - 84bpm  
Respiration - 21cpm  
Blood Pressure - 110/60mmHg  
SPO2 - 97%

Laboratory investigations requested on admission were

Blood for Full blood count

Blood for malaria parasite

Stool routine examination

Gastroscopy

Blood sample was taken, sample bottle labelled and sent to the laboratory for the investigations to be carried out.

The drugs below were prescribed for Madam B.E to treat her condition:

Intravenous Omeprazole 80 mg stat and then 40mg bd x 24 hours

Suspension Nugal 15 mls three times daily x 5 days

Intravenous Metronidazole 500 mg tds x 2 days

Injection Buscopan 40 mg stat

Intravenous Metoclopramide 10mg stat

Intravenous DNS 500mls stat

Drugs were collected from pharmacy. An intravenous cannula was inserted and intravenous medications commenced. Patient and relative were then informed about daily ward routine such as medication, ward rounds and visiting hours. Also patient was orientated to the ward and it's environ. They were introduced to other patients at the ward, shown the toilet, bathroom and also to the nurses' station. Since there was no restroom in the ward, patient was encouraged to eat by her bedside. Items to be used at the ward during their stay such as towel,

bucket, spoon and bowl were also mentioned to the colleague who accompanied her to the ward.

After these interventions, permission was sought from the ward in-charge to use the patient for my case study and she agreed. After 30 minutes of admission, patient's husband Mr. H.A had come around. I then introduced myself to the patient/family that, I am a final student of Holy Family Nursing and Midwifery Training Collage Berekum, conducting a study at the hospital. I then made it known to them my desire to use Madam B.E for the care study. I explained to them holistic care will be rendered to them to ensure speedy recovery. I told them that, as part of my training, final year students are to take a patient each, nurse him or her from the time of admission till time of discharge and home visits. The patient and family accepted and promised their cooperation and readiness to give me any information needed for the study. They were informed that her hospitalization was temporal and that she will be discharged as soon as her condition gets better. They were also informed that, as part of the care, I would visit their home whiles patient was on admission and after she has been discharged. A care plan was then made to manage holistically patient's identified actual and potential problems. On the day of admission at 12:30pm due to patient's complaint of abdominal pain, a nursing diagnosis of Acute Pain (epigastric) related to ulceration of the stomach mucosa was formulated. A goal was set to help relieve patient's epigastric pain within 48 hours and the following nursing interventions were carried out. Patient was reassured that she will be relieved of abdominal pain with holistic care been rendered. Patient was put in lateral position as she felt comfortable and relieved from abdominal pain in that position Patient's level of pain was assessed with a pain rating scale and it recorded 7 showing a severe pain

Food that worsens patient's condition such as pepper, spicy food were identified and patient was discourage from taking it. Noiseless environment was provided by lowering the volume

of the ward television. Prescribed drug such as IM Buscopam 40mg and Injection was administered to relieve patient of pain.

At 12:35pm Madam B.E complain of vomiting. A nursing diagnosis of risk for fluid volume deficit related to vomiting was formulated. A goal was set to ensure patient was relieved of vomiting within 24 hours and the following nursing interventions were carried out. Patient/family were reassured that she is in the hands of health team and that all measures will be put in place to reduce vomiting. Patient was observed for signs of dehydration such as skin turgor and the appearance of the skin. Patient's intake and output was maintained in the chart and it was balanced at the end of each 24 hours. Patient was encourage to drink about 2-3 litres of fluid per day to replace fluid loss. Frequent oral care was provided for patient to replace fluid loss. Fluid diet such as porridge was served to patient in small bit frequently.

At 12:40pm, patient complain of loss of appetite. A nursing diagnosis of Imbalance nutritional pattern (less than body requirement) related to loss of appetite was ten formulated. A goal was set to ensure that patient regained her eating pattern within 48 hours. The interventions carried out included patient was reassured that she will gain back her appetite. Patient's oral hygiene was maintained. Items that are unpleasant were removed before meal. Liquid digestible foods like juice, milo and porridge were served

Food was served according to patient's preference.

At 1:00 pm, through interaction with patient she was verbalised feelings of anxiousness. A nursing diagnosis of Anxiety related to unknown outcome of condition was formulated. An objective was set to ensure Madam B.E was relieved of anxiety within 24 hours. Nursing interventions put in place to ensure goal set to relieve patient of anxiety were; patient was reassured of the competent nursing care. Patient was allowed to express her fears about outcome of condition. Every procedure was explained to patient to ensure her cooperation.. Divertional therapy was provided such as watching television. Patient was allowed to ask

questions and was answered in simple terms for her to understand. Patient and relatives were educated on the condition. Vital signs was checked and recorded to identify any physiological indicators of anxiety such as high pulse rate.

All nursing activities were carried out to ensure speedy recovery of patient. Routine nursing care such administration of medication, monitoring of vital signs, continuous monitoring and assessing of patient, etc were all done.

At 5pm, patient was encouraged to have yam and kontomire stew but she could not eat enough of the food. Madam B.E was reassured that all nursing interventions will be carried out to ensure she regained her appetite. At 8:00pm, patient performed her personal hygiene, due medication suspension Nugal 15ml and IV metronidazole were served and recorded. Her vital sign was checked and recorded as

Temperature	36.3 °C,
Pulse	80bpm,
Respiration	22cpm
Blood pressure	110/75 mmHg.

Adequate ventilation and conducive environment were also provided to induce sleep. Madam B.E slept around 9:30pm.

#### **4.1.2 Second day of Admission (12/11/2021)**

Madam B.E was up from bed by 5:30am. She took her bath and performed oral hygiene unassisted. Patient complained of interrupted sleep throughout the night and this was confirmed by the nurses' notes.

Her vital signs were checked at 6:00am and recorded as

Blood Pressure:	110/ 70 mmHg
Respiration	: 22cpm

Pulse rate : 60 bpm

Temperature : 36.7 °C

Patient took rice porridge with bread for breakfast at 6:30am. Due medication Intravenous Omeprazole 40mg, Suspension Nugal 15 mls and Intravenous Metronidazole 500 mg were served and documented. At 8am, due to patient's complain and night nurses report of patient having interrupted sleep throughout the night, a nursing diagnosis of sleeping pattern disturbances (Insomnia) related to abdominal pain was written and a goal was set to ensure Madam B.E was relieved of insomnia throughout period of admission. The following nursing orders were carried out; Patient was reassured of recovering peacefully. Warm beverages like milo was served to induce sleep. Adequate ventilation was ensured during sleeping hours and switching on fan to induce sleep. Noise was reduced by minimizing television volumes and Nursing activities were planned and carried out together to avoid disturbing the patient Warm bath was ensured in the evening to enable good sleep. The number of visitors were reduced during sleep hours to avoid disturbing patient while sleeping.

Ward rounds was conducted at 8:30am by the medical doctor on duty and patient complain of abdominal pain and sleeplessness. Patient's laboratory results were then reviewed and results were within normal range. Due to financial difficulties patient could not afford to do the Gastroscopy test which she was supposed to do in Sunyani. No new treatment regimen was added to patient's drugs as she was to continue with the old drugs. Patient was monitored throughout the day and nursing care rendered.

At 12:35pm goal set on the day of admission to ensure patient was free from vomiting was evaluated. Goal was fully met as she was took in copious fluid and also showed no sign of dehydration. Moreover at 1pm, goal set to ensure patient was relieved of anxiety was evaluated. Goal was fully met as patient told the nurse that she has no fears and she was observed to have relaxed facial expression. At 1:30pm, patient took fufu with light soup for lunch. Vital signs

were checked and recorded. Patient was encouraged to rest and have a nap in the afternoon. Due medications Intravenous Metronidazole 500 mg and Suspension Nugal 15 mls were served at 2pm. The therapeutic and side effects of the drugs were then observed. At 5:30 pm, Madam B.E took rice and groundnut soup for supper and performed her personal hygiene activities. Her vital signs were checked and recorded in the evening and recorded as

Temperature	36.3 °C,
Pulse	77bpm,
Respiration	19cpm
Blood pressure	120/75 mmHg.

Patient was encouraged to watch the ward television with other patient's at the ward. Patient went to bed around 10:00pm.

#### **4.1.3 Third day of admission (13/11/2021)**

Madam B.E woke from bed at 5:30am. She emptied her bowel, took her bath and performed oral hygiene unassisted. According to the nursing notes patient was able to sleep well throughout the night. Patient complain of coughing intermittently and she was reassured of speedy recovery.

Her vital signs was checked at 6:00am and recorded as

Temperature	37.0 degree Celsius
Pulse	68 beat per minute
Respiration	21 cycle per minute
Blood Pressure	130/70mmHg

She took "tom brown" with milk as breakfast. At 6:30am patients due medication served were Suspension Nugal 15mls and IV Metronidazole 500mg, Documentation of the drugs administered were then done.

During ward rounds the medical officer on duty was notified that patients IV omeprazole, IV metronidazole were completed. He prescribed oral Metronidazole 400mg tds x 5days, Capsule Omeprazole 20mg BD x 14 days and Tablet paracetamol 1g tds x 5 days. Prescribed medication was collected from the hospital pharmacy and served.

At 10am, patient's knowledge on the disease condition was assessed and it was found to be inadequate. A nursing diagnosis of Knowledge deficit related to lack of inadequate information on causes, signs and symptoms and prevention of disease condition (Gastritis) was formulated and a goal was set to ensure patient had adequate knowledge within 24 hours. Nursing interventions carried out included patient /family were reassured that detailed information on Gastritis will be given for better understanding. Time was scheduled with patient and relatives to educate them on Gastritis. Patient was made comfortable by lying in bed while relatives and the nurse sit by bedside. Patient and family knowledge on Gastritis was assessed. Accurate information on the predisposing causes, signs and symptoms, prevention, drug management and lifestyle modification were provided to correct misconceptions. Questions were invited and tactfully answered. Pamphlets on Gastritis were given to patient.

At 12:30pm, goal set on the day of admission (11/11/2021), to ensure patient was relieve of epigastric pain was evaluated. Goal fully met as it was observed that patient was relaxed, looked comfortable and had cheerful facial expression in bed without complains of epigastric pain. Patient verbalized that she does not feel the pain anymore. Moreover at 12:40pm, goal set on the day of admission ((11/11/2021) to ensure patient regained her normal eating pattern was evaluated. Goal was fully met as patient verbalized she can eat more than half of the bowl serve. Patient was informed that of my intention to visit her home the following day to assess her environment. She agreed and promised to give me direction to her house the following day.

Madam B.E had T.Z in the afternoon. During the visiting hours in the evening, Madam B.E was visited by members from her church who mostly belonged to the women group in the church.

At 2pm while patient was still on admission the first home visit was made to her house to assess her home environment. During the visit to patient's home at Komfourkrom, I found patient's house at about 200m from the road and I was met by her husband. Upon inspection of the house, the place was found to be hygienic except bushes that had grown around the house. He was advised to weed to prevent mosquitoes breeding and also reptiles such as snake from lodging there and biting people. Mr.H.A was educated on Madam B.E' condition and advised to assist her in the home chores when she is discharged to ensure complete recovery. I returned from patient's home at 5:50pm and informed her of my findings.

At 6pm she was served with fufu and light soup for supper, due medication i.e Tab Metronidazole 400mg, Capsule Omeprazole 20mg and Tablet paracetamol 1g were served and recorded as prescribed. At 8:00pm patients vital signs were checked and recorded. She slept around 9:00pm.

#### **4.1.4 Fourth day of admission (14/11/2021)**

On the fourth day of admission, Patient waked up from bed at 5:30am, after emptying her bowel. She took care of her personal hygiene without assistance. Madam B.E was served with rice porridge with milk and bread for breakfast.

At 6:00am patients vital signs was checked and recorded as

Temperature	36.6 Degree Celsius
Pulse	68 cycle per minute
Respiration	20 cycle per minute
Blood Pressure	120/70mmHg

Her due medications served and documented were Capsule Omeprazole 20mg, Suspension Nugal 15mls, Tablet Paracetamol 1g and Tab Metronidazole 400mg,

During ward rounds at 7:00am, Madam B.E's condition was stable and she had no new complains, which the medical officer ordered to continue treatment. Patient was informed by medical doctor that she may be discharged the following day if her condition remained stable throughout the day.

At 10am goal set on the previous day to ensure patient had adequate knowledge was evaluated. Goal set was fully met as patient and family gave correct answers to questions asked on Gastritis and patient/ family verbalizing understanding on the information given them.

At 5:00pm, Madam B.E was served with yam and 'kontomire' for supper. At 8:00pm, patient's due medications Tablet Metronidazole 400mg, Suspension Nugal 15ml and Tablet paracetamol 1g were served. All interventions done on patient were document and patient was handed over to the afternoon night nurses. Madam B.E. slept at 9:30pm.

#### **4.1.5 Day of discharge (Fifth day of admission) (15/11/2021)**

Patient woke up from bed at 6:00am. Madam B.E looked cheerful and had relaxed facial expression. She took care of her personal hygiene, after which her vital signs were checked and recorded as

Temperature                      37.0 degree Celsius

Pulse                                78 beat per minute

Respiration                      21 cycle per minute

Blood Pressure                 120/70mmHg

At 7:00am she was served with tom brown and bread for breakfast. Her due medication was served and recorded as prescribed.

At 08:00am goal set on the day of admission to ensure patient regained her normal sleep pattern was evaluated. Goal was fully met as patient was observed to have uninterrupted sleep.

During ward rounds she was reviewed by the medical officer. Madam B.E 's condition was found to be satisfactory. She was subsequently discharged. Patient was to continue with her drugs and report for review 29/11/2021. She was to continue her medications in the house. She called her husband who was waiting outside the ward to inform him. Her folder together with her insurance card was taken to the accounts department for billing. I helped them pack her belongings and discharged her in the admission and discharge book.

I educated patient and husband on how to take her medications as well as the importance of taking medications on time and the side effects as well. They were informed that I will be visiting them in their house and also the need for review was stressed. Patient bid farewell to the staff around and they were helped to pack her belongings into an awaiting car, and bid them good bye.

I finally came back, removed the bed linens and went ahead to carbolized the bed. It was remade for subsequent admission.

#### **4.2 The Preparation of the Patient / Family for Discharge and Rehabilitation**

Preparation towards discharge started on the day of admission until the day of discharge.

Patient and family were reassured that patient will be discharged home once her condition has resolved. The primary aim was to enable her to take active role in her care for speedy recovery and also to give her insight of her condition. Emphasis was made on the need to visit hospital immediately with any illness that may occur, so as to promote early detection and treatment in order to avoid complication. They were educated on the following:

Dietary instructions take into account the patient's daily caloric needs, food preferences, and pattern of eating. Foods and other substances that are to be avoided (e.g., spicy, irritating, or highly seasoned foods; caffeine; nicotine; alcohol) were reviewed with patient and family.

Patient was also encouraged to take in a bland diet and take small meals at frequent intervals when possible. Eating antioxidant foods, including fruits( such as blueberries, cherries and tomatoes), and vegetables (such as garden eggs and cucumber), avoiding refined foods such as white breads, pastas, and sugar, use of healthy oils, such as olive oil, reducing or eliminating trans-fatty acids, found in commercially-baked goods, such as cookies, crackers, cakes, onion rings, donuts and margarine and drinking 6 to 8 glasses of filtered water daily was encouraged. Patient was encouraged to chew food served very well before swallowing and to eat in bits. Information was provided about prescribed antibiotics, bismuth salts, medications to decrease gastric secretion, and medications to protect mucosal cells from gastric secretions can help the patient recover and prevent recurrence. Patient was taught to avoid over the counter pain killers such as Diclofenac, EFPAC, and other analgesics which are NSAIDS e.g. brufen. She was taught that taking those drugs may aggravate her ailment. Finally, emphasis was made on the importance of keeping follow-up appointments with health care providers.

The patient and family were educated to maintain good personal and environmental hygiene, she was advised to wash clothes frequently, proper disposal of refuse, weeding around the environment; she should ensure good drainage systems because chocked and stagnant water can result in breeding of mosquitoes. Patient was encouraged to bath and brushed her teeth twice daily and to keep finger nails short, in order not to harbour micro-organisms. Patient and family were encouraged to adhere to the various education in order to maintain and promote a good environment and health in the house respectively.

### **First Home Visit (13/11/2021)**

The first home visit was made on 13/11/2021 while the patient was still in the ward at about 2:00pm. Patient was pre-informed of my intention to visit her home on the 12/11/2021 and details of the directions to her house was given by patient to me. This visit was to know the

patient's residence, her environment and how it contributed to patient health status. It was also to enable me to know patient's nearest health facility for possible referral and handing over of patient to community health nurse after terminating care.

At 2 pm, I took a car from Drobo station towards Komfourkrom where patient and her family reside. The journey took about 30 minutes from the station to patient's house. As per the directions given by Madam B.E., I got down at the first before entering the town. Patient's house is about 200 meters from the road side and opposite a drinking bar. I met a man and I asked him about patient's house and he took me directly to the house. The house is a 10 room closed quarters. I was warmly welcomed by Mr. H.A, seat and water were then offered to me. I thanked him and explained the reason for the visit. His permission was sought to inspect the house and its environment. The house is built with blocks and it is made up of ten rooms with two kitchens and two bathrooms. They had toilet facility which is outside the house. Even though they have a well in the house, their source of drinking water is a pipe borne stand in the next house. It was explained to me that water from the well is used for house chores. Their household refuse is damp in a shallow dugout at the back of the house which they burn frequently. The only unhygienic condition found was bushes found around the house. Mr. H.A was advised to weed around the house because the bushes could be breeding ground for reptiles such as snakes or even be a breeding ground for insects such as mosquitos. I asked about their usage of mosquito nets and Mr. H.A said they all use it. I congratulated them for using it. I then educated Mr. H.A. on Madam B.E's condition. He was encouraged to assist her in her daily work when she returns home. He was made to understand that stress may aggravate patient's condition and also to ensure she avoids the use of OTC drugs as it may exacerbate her condition. . After the education, permission was sought to leave the house. Mr. H.A. thanked me and accompanied me to the roadside. He was made aware that, extra home visit will be

made when patient is discharged home. He promised to carry out the changes that I had educated them on. I got a motor that was travelling to Drobo and joined the rider.

### **Second Home Visit 20/11/2021**

On 20/11/2021, five days after patient had been discharged from the hospital, the second home visit was paid to patient and her family. The aim of the visit was to assess the state of health of patient at home, to ensure patient was adhering to treatment regimen, to remind them of the review date, to inform them about handing them over to community nurse on the next visit and to ensure the family had implemented the recommendations made on the first home visit.

I was welcomed by Madam B.E. and one of her siblings who had come to visit her. They offered me seat and water. The aim of the visit was explained to them. According to Madam B.E, her husband had gone to the farm, that's why he was not at home at that particular time. I also asked Madam B.E to verify if she was following her treatment regimen and also to remind her the review date which was 23//11/2021. Upon assessment, Madam B.E was well and was not in pains any more. I inspected her drugs and it was known she takes her drugs accordingly. I took this opportunity to encourage and congratulated her for adhering to the treatment regimen. She was then educated to avoid intake over the counter pain medications and spicy food and to rest enough. She was also encouraged to visit the hospital anytime she was sick and to abhor taking unprescribed over the counter drugs. I informed and explained to the patient and relatives that she would be handed over to the Public Health Nurse of their community on the next visit which will be my last visit. Madam B.E thanked me for the care I was rendering to her and her family and promised to come for review on the scheduled date. She also promised to complete the drugs she was being managed on as prescribed.

I took permission to leave after scheduling to visit them again on the 10/11/2021. The family thanked me for the visit and I was seen off by them at 2:15pm on the same day.

### **Review 23/11/2021**

On the review date 23/11/2021, Patient arrived at the outpatient department at 8:30am. Madam B.E looked cheerful. She came alone. She was assisted to raise claims at the records department. Her vitals was checked and recorded at the OPD as

Temperature	36.7oC,
Pulse	74pm
Respiration	23cpm
Blood pressure	120/70mmHg.

Patient was accompanied to the consulting room. Patient was reviewed by medical doctor on duty. Madam B.E lodged no complains. No new drugs were prescribed for patient.

Patient was advised to continue with the remaining of her drugs and adhere to the dietary management advice given to her. Patient was reminded of the last home visit and she was informed that I will be terminating care with her and she would be handed over to a community health nurse who would ensure continuity of care. Patient was escorted to the roadside where she picked a car and I bid her good bye.

### **Third Home Visit (10/11/2021)**

Patient and family were visited as promised on this day. I arrived at the house around 2pm and patient and family were happy to see me. The patient appeared healthy. The purpose of this visit was to terminate care. Patient and her family were congratulated for sticking to medical advice given them and other education they had while on admission.

The patient made no complains when I inquired. The family also demonstrated their preparedness to care for patient by been supportive and encouraging him to take his drugs often. Patient and family were thanked for their support and cooperation during the care. The family and patient also expressed their profound gratitude to me. Since there was no CHPS or health center or any hospital in the community, she was not handed over to a community health personnel rather she was advised to report to the Drobo St. Mary's Hospital any time she was sick. I then informed them that care was finally terminated.

After spending some time with them, I sought for permission to leave and this ended the care I rendered to Madam B.E and her family

## **CHAPTER FIVE**

### **EVALUATION OF CARE RENDERED TO PATIENT**

#### **5.0 Introduction**

Evaluation is the structural interpretation and giving of meaning to predicted or actual impacts of proposals or results. It looks at original objectives and at what are either predicted or what was accomplished and how it was accomplished. It is the final phase of the nursing process which allows the nurse to determine the extent of progress made by the patient and family with comparison to the specific goals and objectives set. It helps to judge patient and family's response to the nursing interventions and the effectiveness of the nursing process. This chapter is categorized into;

- a. Statement of evaluation
- b. Amendment of patient/family care for partially met and unmet outcome criteria
- c. Termination of care

#### **5.1 Statement of Evaluation**

Throughout the period of admission six health problems were identified and objectives were set to solve the identified problem. Below are the various problem presented by patient.

##### **1. Patient was relieved of abdominal pain within 48 hours.**

On the day of admission at 12:30pm due to patient's complaint of abdominal pain, a nursing diagnosis of Acute Pain (epigastric) related to ulceration of the stomach mucosa was formulated. A goal was set to help relieve patient's epigastric pain within 48 hours and the

following nursing interventions were carried out. Patient was reassured that she will be relieved of abdominal pain with holistic care been rendered. Patient was put in lateral position as she felt comfortable and relieved from abdominal pain in that position Patient's level of pain was assessed with a pain rating scale and it recorded 7 showing a severe pain

Food that worsens patient's condition such as pepper, spicy food were identified and patient was discourage from taking it. Noiseless environment was provided by lowering the volume of the ward television. Prescribed drugs such as IM Buscopam 40mg and Suspension Nugal were administered to relieve patient of pain.

On the 13/11/2021, at 12:30pm, goal set on the day of admission to ensure patient was relieve of epigastric pain was evaluated. Goal fully met as it was observed that patient was relaxed, looked comfortable and had cheerful facial expression in bed without complains of epigastric pain. Patient verbalized that she does not feel the pain anymore.

## **2. Patient maintained her normal fluid pattern within 24 hours**

On the 11/11/2021 at 10:15am Madam B.E complain of vomiting. A nursing diagnosis of Risk for fluid volume deficit related to vomiting was formulated. A goal was set to ensure patent was relieved of vomiting within 24 hours and the following nursing interventions were carried out. Patient/family were reassured that she is in the hands of health team and that all measures will be put in place to reduce vomiting. Patient was observed for signs of dehydration such as skin turgor and the appearance of the skin. Patient's intake and output was maintained in the chart and it was balanced at the end of each 24 hours. Patient was encourage to drink about 2-3 litres of fluid per day to replace fluid loss. Frequent oral care was provided for patient to replace fluid loss. Fluid diet such as porridge was served to patient in small bit frequently.

On the 12/11/2021 at 12:35pm goal set on the 11//11/2021 was evaluated. Goal was fully met as she was took in copious fluid and also showed no sign of dehydration.

### **3. Patient regained her normal eating pattern within 48 hours.**

At 12:40pm on 11/11/2021 patient complain of loss of appetite. A nursing diagnosis of Imbalance nutritional pattern (less than body requirement) related to loss of appetite was ten formulated. A goal was set to ensure that patient regained her eating pattern within 48 hours. The interventions carried out included Patient was reassured that she will gain back her appetite. Patient's oral hygiene was maintained. Items that are unpleasant were removed before meal. Liquid digestible foods like juice, milo and porridge were served Food was served according to patient's preference.

On the 13/11/2021 at 12:45pm, goal set on the day of admission to ensure patient regained her normal eating pattern was evaluated. Goal was fully met as patient verbalized she can eat more than half of the bowl serve.

### **4. Patient was relieved of anxiety within 24 hours.**

At 1:00pm on the day of admission, through interaction with patient she was verbalised feelings of anxiousness. A nursing diagnosis of Anxiety related to unknown outcome of condition was formulated. Nursing interventions put in place to ensure goal set to relieve patient of anxiety were Patient was reassured of the competent nurses. Patient was allowed to express her fears about outcome of condition. Every procedure was explained to patient to ensure her cooperation. Divertional therapy was provided such as watching television. Patient was allowed to ask questions and was answered in simple terms for her to understand. Patient and relatives were educated on the condition. Vital signs was checked and recorded to identify any physiological indicators of anxiety such as high pulse rate.

On the 12/11/2021 at 1:00pm, goal set on the 11/11/2021 was evaluated. Goal was fully met as patient told the nurse that she has no fears and she was observed to have relaxed facial expression.

#### **5. Patient regained her normal sleep pattern**

On the 12/11/2021 at 8am, due to patient's complain and night nurses report of patient having interrupted sleep throughout the night, a nursing diagnosis of Sleeping pattern disturbances (Insomnia) related to abdominal pain was written and a goal was set to ensure Madam B.E was relieved of insomnia throughout period of admission. The following nursing orders were carried out; Patient was reassured of recovering peacefully. Warm beverages like milo was served to induce sleep. Adequate ventilation was ensured during sleeping hours and switching on fan to induce sleep. Noise was reduced by minimizing television volumes and Nursing activities were planned and carried out together to avoid disturbing the patient Warm bath was ensured in the evening to enable good sleep. The number of visitors were reduced during sleep hours to avoid disturbing patient while sleeping.

On the 15/11/2021 at 08:00am goal set on the day of admission to ensure patient regained her normal sleep pattern was evaluated. Goal was fully met as patient was observed to have uninterrupted sleep.

#### **6. Patient gained adequate knowledge on the disease condition**

At 11am on the 13/11/2021, patient's knowledge on the disease condition was assessed and it was found to be inadequate. A nursing diagnosis of Knowledge deficit related to lack of inadequate information on causes, signs and symptoms and prevention of disease condition (Gastritis) was formulated and a goal was set to ensure patient had adequate knowledge within 24 hours. Nursing interventions carried out included Patient /family were reassured that detailed information on Gastritis will be given for better understanding. Time was scheduled

with patient and relatives to educate them on Gastritis. Patient was made comfortable by lying in bed while relatives and the nurse sit by bedside. Patient and family knowledge on Gastritis was assessed. Accurate information on the predisposing causes, signs and symptoms, prevention, drug management and lifestyle modification were provided to correct misconceptions. Questions were invited and tactfully answered. Pamphlets on Gastritis were given to patient.

On the 14/11/2021 at 10am goal set on the 13/11/2021 to ensure patient had adequate knowledge was evaluated. Goal set was fully met as patient and family gave correct answers to questions asked on Gastritis and patient/ family verbalizing understanding on the information given them.

### **5.2 Amendment of Nursing Care Plan for Partially met or Unmet Outcome Criteria**

Upon careful implementation of orders and evaluation of the nursing care rendered Madam B.E and her family, there were no partially met or unmet objectives. Hence, there was no need for amendment of the care plan.

### **5.3 Termination of Care**

Termination of care is a gradual process and it starts from the day of admission till the 3<sup>rd</sup> home visit. This is done to enable patient and relatives realize that they were temporary in the hospital and the disease condition that was taking its course would soon end.

On the day of review, the doctor revealed that Madam B.E was fully recovered and very fit. Following this, the last home visit was made to patient's house on 10/11/2021. The reason of the visit was to determine whether patient was healthy after her review and to finally terminate care. . Care was terminated and she was encouraged to visit the hospital anytime she was sick.

## **CHAPTER SIX**

### **SUMMARY OF CARE RENDERED TO PATIENT AND FAMILY**

#### **6.0 Introduction**

According to Weller,(2014), summary is a brief account giving the main point to a health problem. This is the last step of the patient/family care study which entails the student's personal appreciation of the therapeutic relationship with the patient as well as the use of nursing process. This is the last step of the patient/family care study which entails the student's personal appreciation of the therapeutic relationship with the patient as well as the use of the nursing process.

#### **6.1 Summary**

This is a well documented report of interaction between myself and Madam B.E, a 54 year old woman who was admitted into the female's ward of St. Mary's Hospital, Drobo on the 11/011/2021 at 12pm with the diagnosis of Gastritis after presenting with abdominal pain and vomiting . She was attended to by Dr. A.M. Overall, drugs prescribed during patient's stay at the hospital were

Intravenous Omeprazole 80 mg stat and then 40mg bd x 24 hours

Suspension Nugal 15 mls three times daily x 5 days

Intravenous Metronidazole 500 mg tds x 2 days

Injection Buscopan 40 mg stat

Intravenous Metoclopramide 10mg stat

Intravenous DNS 500mls stat

Capsule Omeprazole 20 mg BD X 14 days

Tab Metronidazole 400 mg tds x 5 days

Tab paracetamol 1g tds x 5 days

Investigations carried out on patient were;

Blood for Full blood count

Blood for malaria parasite

Serology testing for H. Pylori antibody

Stool routine examination

Gastroscopy

All laboratory investigations were carried out and reviewed with appropriate intervention except gastroscopy which could not be done as a result of unavailability of gastroscopy machine in the facility.

During her period of hospitalization the seven health problems that were identified includes: Epigastric pain, Vomiting, Anxiety, loss of appetite, Insomnia and knowledge deficit. Nursing care plan for the identified problems were drawn and implemented. Some of the interventions given include; Patient was reassured of speedy recovery since she is in the hands of competent nurses and medical team, the level of pain was assessed, Patient was put in a comfortable position, patient was educated and assisted to carry out the exercise. Prescribed antacids and analgesic were served. This led to the speedy recovery and discharging of patient on 15/11/2021.

Three home visits were made to the patient's home during the period of care.

The first one was during her hospitalization to confirm information provided by the patient, assess patient's home environment and to create a conducive home environment for receiving her after discharge. The second was after discharge to remind patient of review date and to assess patient's compliance with treatment and education given and the last visit was to hand patient over to a community nurse to ensure continuity of patient's care. During the home visits, education on patient's condition and its management, personal and environmental hygiene, good nutrition and the adverse effects of continuous use of over the counter drugs were given and reinforced. The care was terminated on 11/11/2021 during the third home visit.

## **6.2 Conclusion**

In conclusion, there is no doubt that a successful patient/family care depends on the cooperation of the patient and family with the nurse and other members of the health team. This care study has helped me gain much insight into the management and education of gastritis and other gastrointestinal-related disorders and has also broadened my knowledge in rendering comprehensive care to patient and family. I have being able to put the knowledge acquired at lectures into practice and has also led to my development of therapeutic relationship between patient and their family and improved my interaction with colleagues and senior staff.

As copy of this work is kept at the school's library as a reference for students who embark on similar study and helps the profession as a whole as a reference point in managing similar conditions, it is therefore my recommendation that nursing process concept should be adhered to in all clinical areas to help nurses continue delivering quality and holistic care to patients.

## REFERENCE

- Ferris, F. Fred. (2012). *Ferri's Netter Patient Advisor. (2nd Ed)*. China. Elsevier Science Ltd
- Joint Formulary Committee (2015), *British National Formula (75<sup>th</sup> ed.)*, London; BMJ Group and pharmaceuticals press, London
- Harvey, M. (2014), *Black Medical Dictionary*, (41<sup>st</sup> ed.), A&C Black publication, London.
- Hinkle, J.L., & Cheever, K.H. (2014). Brunner and Saddarth's Textbook of Medical – Surgical Nursing.(12<sup>th</sup> ed. ). London: Wolter's Kluwer Health/ Lippincott
- Marilyn E., Mary F.M., & Alice C.M., (2012), *Nursing Care Plans Guidelines for individualizing Patient Care Across the Life Span*, (8<sup>th</sup> ed.), F.A Davis Company. Philadelphia
- Ministry of health /Ghana health service. (2014). *Standard treatment guidelines 10<sup>th</sup> edition*, Accra, Ghana.
- Scalon, V.C. & Sanders, T. (2014), *Essentials of anatomy and physiology*, (5<sup>th</sup> ed.), F.A Davis Company, Philadelphia
- Waugh, A. and Grant, A. (2014). *Ross and Wilson Anatomy and Physiology in Health and illness*. (11<sup>th</sup> ed.) Elsevier limited
- Weller, F.B. (2014). *Bailliere's Nurses' Dictionary for Nurses and Health Workers*. (25<sup>th</sup> ed.)

**APPENDIX: VITAL SIGNS OF MADAM B.E**

**Table 7: Vital Signs of Madam B.E throughout admission**

<b>Date</b>	<b>Time</b>	<b>Temperature (°C)</b>	<b>Pulse (bpm)</b>	<b>Respiration (cpm)</b>	<b>Blood pressure</b>
11/11/2021	12pm	36.9	84	21	110/60
	2pm	36.1	72	18	120/70
	10pm	36.3	80	22	110/75
12/11/2021	6:00 am	36.7	80	22	110/70
	2:00 pm	36.1	86	22	120/80
	10:00 pm	36.3	77	19	120/75
13/11/2021	6:00 am	37.0	68	21	130/70
	2:00 pm	36.3	86	20	120/70
	10:00 pm	36.3	74	18	110/70
14/11/2021	6:00 am	36.6	68	20	120/70
	2:00 pm	35.8	73	16	115/80
	10:00 pm	36.6	67	18	115/70
15/11/2021	6:00 am	37.0	78	21	120/70

SIGNATORIES

1. THE STUDENT NURSE

NAME: ADU-ADJEI MISPA FRANCISCA

SIGNATURE: .....

DATE: ..... 05/10/22 .....

2. NURSE IN-CHARGE OF FEMALE'S WARD- SAINT MARY'S HOSPITAL  
DROBO.

NAME: MR. AKUFFO DAVID

SIGNATURE: .....

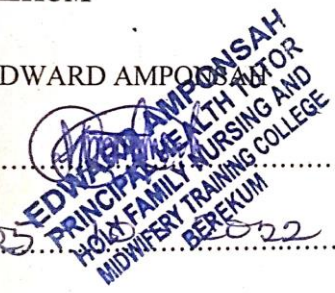
DATE: ..... 05/10/2022 .....

3. THE SUPERVISOR, HOLY FAMILY NURSING AND MIDWIFERY TRAINING  
COLLEGE, BEREKUM

NAME: MR. EDWARD AMPONSAH


SIGNATURE: .....

DATE: ..... 05/10/2022 .....



4. THE PRINCIPAL, HOLY FAMILY NURSING AND MIDWIFERY TRAINING  
COLLEGE, BEREKUM

NAME: MONICA NKURUMAH

SIGNATURE: .....

Date: ..... 06/10/22 .....

