

HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE, BEREKUM

**A PATIENT/FAMILY CARE STUDY ON
PEPTIC ULCER DISEASES**

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

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PREFACE

Before the era of Florence Nightingale, nursing was being practiced in various homes in caring for new borns, the sick and the wounded. From nightingale's era it became a profession that requires formal training based on the nursing process approach. The nursing process is a tool used by nurses to provide a holistic care to the patient, the family and the community. As a practice, the Nursing and Midwifery Council of Ghana requires that every student nurse submit a Patient/Family care study which makes use of the nursing process before the award of Registered General Nursing certificate.

Patient and family care study is a report primarily about the care rendered to a patient and family. The study helps the student nurse to be abreast with the necessary care given to patients, emphasizing health promotion, maintenance and restoration or enhancing a peaceful death, depending on the patient's condition. The study also helps the student nurse to apply knowledge acquired theoretically and clinically in courses such as basic Nursing, Advance Nursing, Pharmacology, Medical and Surgical Nursing to nurse a patient from admission through discharge to home visits. During the study, a student nurse is required to give comprehensive details of a particular patient and family which include assessment of the patient and family to enable the student to set goals and objectives for proper implementation. Due to the comprehensive care plan given, the student nurse becomes equipped with information on the patient's condition. Patient initials were used instead of the patient full name to maintain confidentiality.

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Finally, my colleagues RGN23, not forgetting my best friend Daninteng T. Daniel and all whose criticisms, encouragement and support helped me to complete my care study successfully, I say God bless you all.

INTRODUCTION

Patient and family care study is a study made on a particular patient and family with a specific diseases condition. This study was conducted on Miss. H.N. a 20-year-old lady with a diagnosis of Peptic Ulcer Disease (PUD). On the 15th of November, 2022 at 2:00pm, Miss H.N. was admitted to the Female Medical Ward through the Out-Patient Department for an admission per ambulance by a nurse and a relative. Patient complained of epigastric pain, vomiting, loss of appetite and constipation. Patient was alert and conscious on arrival. On admission her vital signs were checked and recorded. Five health problems were identified and appropriate nursing interventions were put in place to tackle each of the problems. The five health problems identified were Epigastric pain, episodes of vomiting, loss of appetite, constipation and knowledge deficit.

Laboratory investigations ordered were;

1. Stool for H. Pylori test
2. Blood film for malaria parasites
3. Blood Urea and creatinine
4. Full Blood Count (FBC) for:

White blood cell count, Red blood cell count and Haemoglobin level estimation.

Patient was placed on the following medications:

1. Suspension Nugal O 15mls tds x 5days
2. Intravenous Dextrose in Normal Saline 5% 2 liters x 24 hours
3. Intravenous Omeprazole 40mg stat then 40mg bd x 24 hours
4. Rangers Lactate 1litre x 24 hours
5. Intravenous Buscopan 40mg bdx 24hours
6. Intramuscular Promethazine 25mg stat
7. Capsule Omeprazole 20mg bd x7days

8. Intravenous Amoxiclav 1.2g tds x 24 hours
9. Amoxiclav, oral, 625mg bd x 7days
10. Intravenous metronidazole 500mg tds x 24 hours
11. Metronidazole, oral, 400mg tds x 7days
12. Intravenous Tramadol 200mg in 500mls of Normal Saline x 12 hours

Care plans was drawn with clear objectives and appropriate nursing interventions instituted to tackle each of the problems and they included reassuring the patient on her condition, encouraging patient to assume the prone position to alleviate pain, engaging patient in divisional therapy to draw her attention from pain. Peptic Ulcer Disease was clearly understood by the patient and family, as they were able to explain the causes, signs and symptoms, treatment and prevention of the disease. The patient was prepared towards discharge from the first day of admission. I chose this patient because I wanted to acquire in-depth knowledge on PUD.

Miss H.N recovered quickly without any complication and was scheduled for review. During the course of care, the patient home was visited 3 times. Three home visits were made to ensure continuity of patient's care. During the home visits, education on patient's condition and its management, personal and environmental hygiene was done. Adjustments were also done in their house environment. In all, the patient spent five days at the hospital. Care was terminated on the 9th December, 2022.

The whole care study is divided into six chapters according to the nursing process approach and organized as follows:

Chapter one deals with assessment of patient/family. This includes patient particulars, family medical and socio-economic history, patient developmental history and patient lifestyle and hobbies, past and present medical history, admission of patient, patient concept of illness, literature review of the disease condition and validation of data.

Chapter two involves data analysis, in which data collected is compared with literature review, tables of laboratory investigations, treatment, clinical manifestation, pharmacological of drugs, complication, patient and family strength, health problem identified and nursing diagnoses.

Chapter three deals with planning patient and family care, in this chapter care plan was drawn and intervention was carried out.

Chapter four talk about interpretation of patient and family care, summary of actual nursing care giving to patient, preparation of patient and family towards discharge and rehabilitation and follow up home visit.

Chapter five deals with an evaluation of care rendered to patient and family, amendment of nursing care rendered to Miss H.N. and family from time of admission to when she was discharge.

Chapter six happens to be the last chapter, deals with the summary and conclusion followed by bibliography and appendix,

TABLE OF CONTENT

PREFACE	i
ACKNOWLEDGEMENT	ii
INTRODUCTION.....	iii
TABLE OF CONTENT	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
CHAPTER ONE.....	1
ASSESSMENT OF PATIENT/FAMILY	1
1.0 Introduction	1
1.1 Patient Particulars.....	1
1.2 Patient/Family'S Medical History	2
1.3 Patient/Family Socio-economic History	2
1.4 Patient Developmental History	3
1.5 Patients' Obstetric History.....	4
1.6 Patient Lifestyle and Hobbies	5
1.7 Patient's Past Medical/Surgical History	5
1.8 Patient's Present Medical History	6
1.9 Admission of the Patient	6
1.10 Patient concepts of the condition or illness.....	8
1.11 Literature Review on Peptic Ulcer Disease.....	8
1.12 Validation of Data	25
CHAPTER TWO.....	26

ANALYSIS OF DATA	26
2.0 Introduction	26
2.1 Comparison of Data with Standard	26
2.2 Patient and Family’s Health Problems	38
2.3 Patient and Family’s Strength.....	39
2.4 Nursing Diagnoses	39
CHAPTER THREE.....	40
PLANNING FOR PATIENT AND FAMILY CARE.....	40
3.0 Introduction	40
3.1 Objectives/Outcome Criteria for Patient and Family Care	40
CHAPTER FOUR.....	47
IMPLEMENTING PATIENT/FAMILY CARE PLAN	47
4.0 Introduction	47
4.1 Summary of Actual Nursing Care Rendered to Miss H.N and the Family	47
4.1.1 Day of Admission (15/11/22).....	47
4.1.2 Second Day of Admission (16/11/22).....	50
4.1.3 Third Day of Admission, (17/11/22).....	51
4.1.4 Fourth Day of Admission (18/11/22).....	53
4.1.5 Fifth Day of Admission (19/11/22/ Day of Discharge).....	54
4.2 Preparation of the Patient/Family for Discharge and Rehabilitation.	55
4.3 Follow up/Home visits/Continuity of Care.	56
4.3.1 First Home Visit (18th November, 2022)	57
4.3.2 Second Home Visit (23 rd November, 2022).....	59
4.3.3 Day of Review (5 th December, 2022).	60
4.3.4 Third Home Visit (9th December, 2022)	61

CHAPTER FIVE.....	63
EVALUATION OF CARE RENDERED TO PATIENT AND FAMILY	63
5.0 Introduction	63
5.1 Statement of Evaluation	63
5.2 Termination of Care	66
CHAPTER SIX.....	67
SUMMARY AND CONCLUSION	67
6.0 Summary and Conclusion	67
6.1 Summary	67
6.2 Conclusion.....	69
APPENDIX.....	70
Bibliography	71
SIGNATORIES	Error! Bookmark not defined.

LIST OF TABLES

Table 1: Comparison of Duodenal Ulcer and the Gastric Ulcer	16
Table 2: Comparison of Diagnostic Investigation Review and Actual Investigation Done on the Patient.....	27
Table 3: Diagnostic Investigation / Test Conducted on Miss H.N	29
Table 4: Comparison of Causes and Predisposing Factors in Literature to Those Confirmed Table by Miss H.N.....	30
Table 5: Comparison of Clinical Features Reviewed to That Miss H.N Exhibited.....	31
Table: 6 Comparison of Patient's Treatment with that of Literature Review	33
Table 7: pharmacology of Drugs Administered to the Patient	34
Table 8: Comparison of Complications of the Patient Was With Those Outlined in Literature Review	38
Table 9: Nursing care plan for Miss. H.N.....	42
Table 10: Vital signs of Miss H.N throughout the period of hospitalization.....	70

LIST OF FIGURES

Figure.1: The stomach.....	10
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CHAPTER ONE

ASSESSMENT OF PATIENT/FAMILY

1.0 Introduction

Assessment is the systematic collection of data to determine the patient health status and any actual or potential health problem (Hinkle, Cheever, & Overbaugh, 2022). As the first phase in the nursing process assessment deals with collection of data from patient/family and the environment. This is done through interview, observation and examination. This chapter as well gives the general background information of the patient/family and also the community in which they live. It deals with the patient particulars, the family medical and socio-economic history, the patient developmental history, her lifestyle and hobbies. All these pieces of information were gathered gradually starting from the day of admission.

1.1 Patient Particulars

Particulars are factors or details such as name, sex, religion, ethnicity, date of birth etc about the patient which were written down and kept as record (Weller, 2019). My patient, H.N is a 20year-old young lady, who was born in the year 2002. She was born at Bawku which is in the upper East region. She was bred and buttered at Bawku until they migrated to Techiman town. She is a Moosi by tribe but also speaks Twi, English and Hausa additional to the Moosi language. She is an Islam who strongly beliefs in Allah. She stays together with her parent in Techiman, Bono East region. She stays at Kenten with a house number TL004. She completed Bawku Senior High School in the year 2021 and has already bought Ministry of Health forms waiting for an admission into a nursing training college. Though she is depending on her parents for a living, she works at the market as a sales girl to support her parents (A.H and I.A). Her parents gave birth to four children and she happens to be the first born. She is of the height 160cm, weight 53kg, fair in complexion and also has a tribal mark

on the left cheek. Aside this there is no any physical challenge. Her younger sister is her next of kin.

1.2 Patient/Family's Medical History

A patient medical history talks about allergies, illness, surgeries and immunization. It also talks about information on medicines taken and health habits, such as diet, exercise. The knowledge of the family's medical history helps in the diagnosis of certain heredity diseases in the family. According to Miss. H.N there has not been any record of diabetes and hypertension in the family. She also assured me of no known sickle cell diseases and mental illness in the family but what they normally experiences is headache and an abdominal pain which they often buy over the counter medicine and most at times too treat it with traditional medicine. Though they have NHIS, they are not fun of visiting the hospital. She said they often buy paracetamol for headache, fever, and pains and magnesium trisilicate for abdominal pain aside the traditional medicine. She has no known allergies.

1.3 Patient/Family Socio-economic History

Socio-economic status is an economic and sociological combined total measures of a person's work experiences and of an individual's or family's economic access to resources and social position in relation to others (Weller, 2019). The family of Miss H.N falls within the lower class and they are able to settle their hospital bills with the help of the National Health Insurance Scheme. The patient claims her father is a mechanic and her mother sells full fried chicken at the market to make ends meet in the family. They have been taken part in these activities to help in given them a good education and also to support the family which includes extending a helping hand to their extended family when the need arises and at times too randomly, though they least expect any help from the extended family but they sometimes get help from them too. Together with her nuclear family they stay in Techiman

but they often pay visits to their family members mostly during occasions and vice versa too. They have no other Haram unless what their religion forbids them to do.

1.4 Patient Developmental History

Developmental history refers to the information obtained from the parents of a specific patient regarding potential significant historical milestone and event that might have a bearing of the patient current difficulties. Growth and differentiation are two aspects of development (Weller, 2019). The process by which living thing's body reaches its full physical development is known as growth (Weller, 2019). Miss H.N claims she was the only one among her siblings who was delivered at home by a traditional birth attendance (TBA), and that too without complications or problems during pregnancy, labor and even breastfeeding said to her by the mother. She believes that the mother went to an antenatal and postnatal clinics respectively. She has also been fully immunized as evidenced by the scar on her right deltoid muscles. Miss H.N's mother states that she was breastfed for 6 months before introducing any supplementary food to her as advised at the hospital, such as: cerelac, tombrown and porridge. Between the ages of 2 and 3 years, she went through typical development milestone such as sitting, crawling, standing, walking and running. At the age of 17, Miss H.N began to exhibits some secondary sexual characteristics which include the development of breast and growing of armpit and pubic hairs. She attended school and now has completed the secondary level in the year 2021. Miss H.N claim to have the passion of becoming a nurse a day to come and this passion has encouraged her to apply to a nursing training college and waiting for an admission. She is currently in her active reproductive age but has not married yet. According to Eric Erikson's stage of psychosocial development, the basic assumption of the theory is that human being go through eight stages of development, failure to go through a stage completely would lead to crises.

1. Trust verses Mistrust (0-18months)
2. Autonomy verses Shame (18-3years)
3. Initiative verses Guilt (3-5years)
4. Industry verses Inferiority (6-12years)
5. Identity verses Confusion (12-18years)
6. Intimacy verses Isolation (19-40years)
7. Generativity verses stagnation (40-65years)
8. Integrity verse Despair (65 and above)

With reference to the theory of psychosocial development, Miss H.N is within “Intimacy verses Isolation”, which is the sixth stage but specifically at the intimacy stage this is because she already has a boyfriend. People within this stage are in their early adulthood (20s through to early 40) and hence they develop sense of readiness to share their lives with others. However, if other stages have not been successfully resolved, younger adult may have trouble developing and maintaining successful relationship with others. The family of Miss H.N hopes that their child goes through all these stages in her life and that too successfully.

1.5 Patients’ Obstetric History

According to Miss H.N and as well confirmed by her parents that she has never been married before neither has she gotten pregnant, She claim she had her menarche at the age of 12years with that too she has been experiencing a normal bleeding to be 7days, within that 7days she has a heavy flow from the 2nd day to the 4th day followed by a light flow to the 7th day which is accompanied by cramps on the first two days. The pain was described as intermittent. Miss H.N claim she learnt from school and understood that unprotected sex can lead to an unwanted pregnancy and contracting Sexually Transmitted infections (STD’s) too as well. This has made her to be very careful around such activities. She has not gone under any

physical vaginal examination or laboratory studies before and this makes her to believe she is healthy and reproductive.

1.6 Patient Lifestyle and Hobbies

Lifestyle/hobby is a style of living that reflects the attitude and values of a person or a group (Wang & Peura, 2015). According to Miss H.N, during her SHS time, she used to wake up around 4:30am to pray then after that makes preparation to class, this has become a habit of her. She always sleeps around 10:30pm and wakes up around 4:30am to pray then do house chores, brushes her teeth with toothbrush and pepsodent. She bathes twice a day with soap and warm water, prepare breakfast either tea or porridge for her family before she leaves for work. She takes her lunch at the market with her own money, she also made mention of taking a lot of water during the day. She is very calm and quite, also hardworking this makes her madam at work to like her very well. According to Miss H.N she was partaking in athletics, hand ball and volley ball at school because it was her favourite. Her favourite food is banku with hot pepper and tilapia. She sometimes plays ludo during her leisure time but would love to sing but she does not have the voice. Aside all things, she does not take her prayers for granted because that was how they were brought up. She observes all daily prayers on time as required.

1.7 Patient's Past Medical/Surgical History

Past medical history according to Farlex (2012) is a comprehensive statement of facts pertaining to a past health gathered ideally from the patient by directed questioning. According to Miss H.N, she does not remember any illness that she had suffered from but she sometimes experience headache, abdominal pain and diarrhoea and she always treat it with over the counter medicine and other times too with herbal medication. According to her this is the first time she has been admitted at the hospital and she has no known allergies.

1.8 Patient's Present Medical History

According to the patient she has been experiencing some epigastric pain of late but she did not pay much attention to it because it sometimes happens and subsides on its own and at times too after taking over the counter or traditional medicine. On the 15th November 2022, it started again. It later subsided and rose again after she took in mashed kenkey at the market. She then sought permission to go home to have a rest thinking it would subside again but to her surprise it did not and the pain kept on worsening. She was then rush to the Holy Family Hospital Techiman by her mother around 1:30pm. During OPD consultation, she complained of experiencing severe epigastric pain, vomiting, loss of appetite and also, had history of constipation. She said both hunger and taking in foods aggravates her pain.

She was admitted to the female's medical ward of the hospital for proper medical care.

1.9 Admission of the Patient

H.N was admitted to the Female Medical Ward of the Holy Family Hospital through the Out-Patient Department. She was accompanied by a nurse and a relative at 2:00pm to the ward with diagnosis of peptic ulcer disease. She was given bed 19 on arrival to the Medical Ward. Miss H.N complained of epigastric pain, vomiting, loss of appetite and constipation. H.N was made comfortable to rest in bed. Her vital signs during admission were assessed and recorded as:

1. Temperature	36.2 ⁰ C
2. Pulse	80bpm
3. Respiration	22cpm
4. Blood pressure	110/80mmHg
5. Weight	53kg
6. Height	160cm

Patient was managed on the following medications;

1. Suspension Nugal O 15mls tds x 5days
2. Intravenous Dextrose in Normal Saline 5% 2 liters x 24 hours
3. Intravenous Omeprazole 40mg stat then 40mg bd x 24 hours
4. Rangers Lactate 1litre x 24 hours
5. Intravenous Buscopan 40mg bdx 24hours
6. Intramuscular Promethazine 25mg stat
7. Capsule Omeprazole 20mg bd x7days
8. Intravenous Amoxiclav 1.2g tds x 24 hours
9. Amoxiclav, oral, 625mg bd x 7days
10. Intravenous metronidazole 500mg tds x 24 hours
11. Metronidazole, oral, 400mg tds x 7days
12. Intravenous Tramadol 200mg in 500mls of Normal Saline x 12 hours

Ordered laboratory investigations were;

1. Full blood count
2. Blood film for malaria parasite
3. Stool analysis for Helicobacter Pylori
4. BUN (Blood Urea Nitrogen) and Creatinine

Miss H.N and relatives were orientated to the ward and its cubicles and daily ward routines were adequately explained to them, their valuables were kept on the bed side. The patient was not disturbed much with orientation since she was in pain and needed rest and care immediately. They were also introduced to the other patient on the ward and her name and other particulars were entered into the admission and discharge book as well as the daily ward state. An intravenous catheter was secured on her right wrist. The patient and the relative were very anxious on assessment. Psychological preparation by reassuring them of

the competency of staff present was offered to them. IV Tramadol 200mg in 500mls of Normal Saline and Syrup Nugal O were administered to reduce patient's abdominal pains. After patient felt a bit relieved from the pains, she and her relative was spoken to about the intention to use them for care study and they were made aware of the study been a requirement of the Nursing and Midwifery Council of Ghana for every level three hundred student before completion. Thorough explanation about what, how and when the care study will be done was offered to them. Both patient and relative offered a verbal consent after they understood the explanation. They were assured of total confidentiality about any information they let out. The ward in-charge and other ward nurses present were also informed and they gave their go-ahead. Further explanations were given to her about how the care is going to be rendered to her from the time of admission until discharge and also, visitations to her residence during her admission and after she has been discharged. Discharge plan was communicated to patient and relatives including possible duration of hospitalization. After the admission process, a care plan was prepared for the patient based on problems identified.

1.10 Patient concepts of the condition or illness

Upon review patient did not know the cause of her illness but she had heard not taking food regular can cause it. Patient believed that after the treatment such illness may not be experienced by her again because she would take her meals regular as well as obey whatever instructions she would be given by the doctors and the nurses.

1.11 Literature Review on Peptic Ulcer Disease

Literature review gives details of the condition. It also entails the standard with which the patient's clinical manifestations, diagnostic, investigation, treatment and others were compared. It comprises of the following overview:

1. Definition
2. Types
3. Incidence
4. Etiologic / causes
5. Pathophysiology
6. Clinical features
7. Diagnostic investigations
8. Medical/surgical management
9. Nursing management
10. Prevention
11. complications

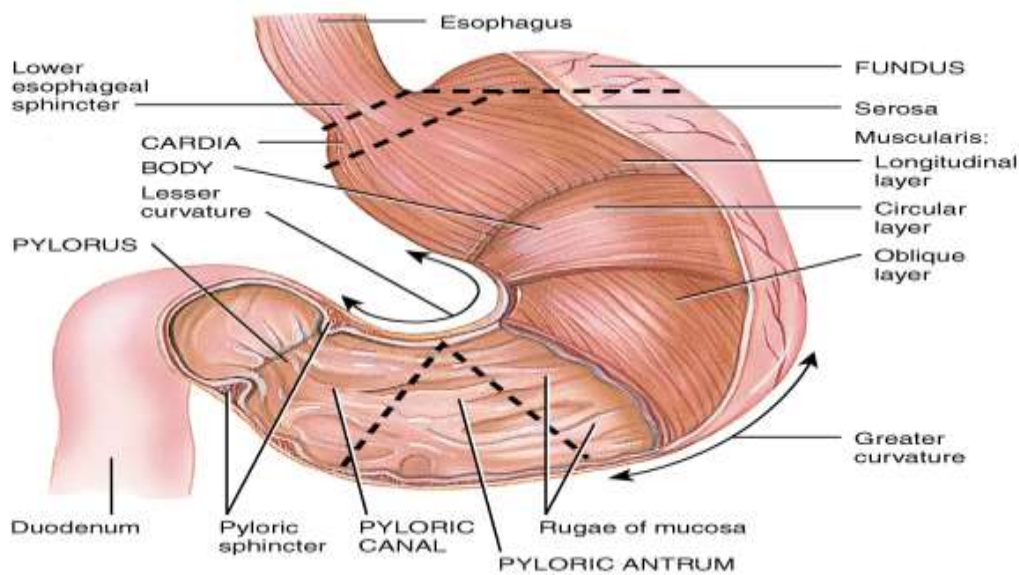
Anatomy Overview of the Gastro Intestinal Tract

According to Tortora & Derrickson (2019), the gastro intestinal system is essentially a long tube running through the body with specialized sections that are capable of digesting materials put in at the top end and extracting any useful component from it, then expelling the waste product.

The Esophagus

According to Tortora & Derrickson (2019), once food has been chewed and mixed with saliva in the mouth, it is swallowed and passes down the esophagus. The esophagus has a stratified squamous epithelial lining which protects the esophagus from trauma, the sub mucosa secretes mucus from the mucus gland which aid the passage of food down the esophagus. The lumen of the esophagus is surrounded by layers of muscles, voluntary in the top third progressing to involuntary in the bottom third and food is propelled into the stomach by waves of peristalsis.

Figure:1 The Stomach



The stomach is a dilated portion of the elementary canal between the esophagus and the small intestine. The stomach is a J shaped and is about 25-30cm long. (Ross & Wilson, 2014). The stomach is a J shaped organ with two opening, the esophageal and the duodenal. It has 4 regions, fundus, body, cardiac and pylorus. Each region performs different functions, the fundus collects digestive gases, the body secretes pepsinogen and hydrochloric acid and the pylorus is responsible for mucus, gastrin and pepsinogen secretions. The stomach is continuous with esophagus at the cardiac sphincter and with the duodenum at the pyloric sphincter. It has two curvatures, the lesser and the greater curvature. According to Sussan (2016), the stomach has these major functions:

1. Temporary food storage.
2. Control the rate at which food enters the duodenum.
3. Acid secretions and Anti-bacterial action.

Areas in the stomach secrete different types of cells which also secretes enzyme which helps in digestion.

1. Parietal cells which secretes hydrochloric acid.
2. Chief cells which secretes pepsin.

3. Entero-endocrine cells which secretes regulatory hormones.

The stomach is comprised of 3 layers

1. Inner oblique muscles
2. Circular muscles
3. Outer longitudinal muscles

The stomach also secretes gastric juice even when it contains no food. It also contains mucosa which protects the stomach from the corrosive of the acid through these:

1. The thick coating of bicarbonate rich in mucus is built on the stomach wall.
2. The epithelial cells of the mucosa are joined together by tight junction that prevents gastric juice from leaking into the underlying tissue layers.
3. Damage epithelial mucosa are shed and quickly replaced by division of undifferentiated stem cell that reside where gastric pits join the gastric gland.

The Small Intestine

According to (Waugh & Grant, 2018), the small intestine is the site where most of the chemical and mechanical digestion is carried out, and where virtually all of the absorption of useful materials is carried out. The whole of the small intestine is lined with an absorptive mucosal type with certain modifications for each section. It also has a smooth muscle which help in the contraction of food in the peristalsis movement.

The duodenum

It forms a C shape around the head of the pancreas. Its main function is to neutralize the acidic gastric contents (called chyme) and to initiate further digestion, Brunner's glands in the submucosa secrete alkaline mucus which neutralizes the chyme and protects the surface of the duodenum.

Definition of Peptic Ulcer

According to Hinkle et al. (2022) peptic ulcer is an excavation (hollowed out area) that forms in the mucosal wall of the esophagus, stomach in the pylorus (the opening between the stomach) and the duodenum or in the duodenum (the first part of the small intestine). A peptic ulcer may be referred to a gastric, duodenal or esophageal ulcer depending on its location. It is caused by erosion of a circumscribed area of mucus membrane. The erosion may extend as deeply as the muscle layer or through the muscle to the peritoneum. Peptic ulcers are more likely to occur in the duodenum than in the stomach (Hinkle, Cheever, & Overbaugh, 2022).

Incidence

Peptic ulcer disease occurs more in men than in women with the ratio of 3:1. In the developed world duodenal ulcer is common than gastric ulcer occurs in younger age. Gastric ulcer becomes relatively common in elderly. After menopause, the incidence of peptic ulcer in women is almost equal to that of men with duodenal ulcer (Hinkle, Cheever, & Overbaugh, 2022). In Africa, the cumulative life time risk of developing peptic ulcer is between 5% and 10% amongst the general population due to high use of Non-steroidal Anti-inflammatory drugs.

Causes of Peptic Ulcer Disease (Predisposing Factors)

According to Kumar and Clark (2020) and Standard Treatment Guidelines (2017) the cause of peptic ulcer are as follows:

1. Age (most often in people between the age of forty and sixty years).
2. Emotions or stress and anxiety.
3. Infections of a gram negative bacterial (*Helicobacter pylori*).
4. Familial tendency.

5. Medications, chronic use of corticosteroids and Non-steroidal anti-inflammatory drugs. Examples diclofinac, aspirin.
6. Alcohol ingestion.
7. Intake of spicy foods.
8. Excessive smoking.
9. Impaired activities of the pancreas.
10. Excessive secretions of gastric acid.
11. Inadequate protection of the lining of the stomach and the duodenum against digestion of acid and pepsin.

Types of Peptic Ulcer Disease

According to Hinkle et al. (2022), peptic ulcer can be classified according the location or site of mucosal erosion.

1. Esophageal Ulcer: This is the less common type of peptic ulcer where there is an excavation in the part of the mucosal lining of the esophagus.
2. Gastric Ulcer: This is an excavation formed in the mucosa wall of the stomach.
3. Duodenal Ulcer : This is an excavation formed on the mucosa wall of the duodenum

Peptic ulcer can also be described as acute or chronic depending on the degree of mucosal involvement.

Pathophysiology

According to Hinkle et al. (2022), peptic ulcer occurs mainly in the gastro duodenal mucosa because the tissues cannot withstand the digestive action of gastric acid (HCL) and pepsin. The erosion is caused by the increase concentration or activity of acid /pepsin or by decrease resistance of the mucosa. A damage mucosa cannot secrete enough mucus to act as a barrier against hydrochloric acid. The use of Non-steroidal Anti-inflammatory drugs (NASIDs) inhibits the secretion of mucus that protects the mucosa. Patients with duodenal ulcer secretes

more acid than normal, whereas patient with gastric ulcer tend secretes normal or decrease level of acid. Damage to the gastro duodenal mucosa wall results in decrease resistance to bacteria and thus infection from helicobacter pylori bacteria may occur. Zollinger Ellison Syndrome is suspected, when a patient has several peptic ulcers or an ulcer that is resistance to standard medical therapy, it is identified by the following:

1. Hypersecretion of gastric juice.
2. Duodenal ulcers and
3. Gastrinomas (islet of cell tumors) in the pancreas.

Diarrhoea and steatorrhea (unabsorbed fat in the stool) may be evident. The most common symptom is epigastric pain. Stress ulcer is the term given an acute mucosal ulceration of the duodenal or gastric area that occur after physiologically stressful event such as burns, shock, severe sepsis and multi organs trauma. As the stressful condition continues, the ulcer spread. When patient recovers the lesions are reversed. This pattern is typical of stress ulceration, differences of opinion exist as to the actual cause of mucosal ulceration in stress ulcer. Usually the ulceration is preceded by shock, this lead to decrease gastric mucosal blood flow and to reflux of duodenal content into the stomach. In addition, large quantities of pepsin are released. The combination of ischemia, acid and pepsin creates an ideal of climate for ulceration. A small portion of patients who bleed from an acute ulcer have had no previous digestive complains, but they develop symptoms thereafter. Patient may present with gastrointestinal bleeding as evidenced by the passage of tarry stools.

Clinical features

1. Dull gnawing pain or burning sensation in the mid epigastrium or the back (epigastric pain).
2. Vomiting
3. Weight gain/weight loss depending on the type.
4. Pyrosis (heartburns)
5. Bloating (abdominal tenderness).
6. Nausea.
7. Constipation or diarrhea.
8. Hematemesis.
9. Gastrointestinal bleeding.
10. Tarry stools.
11. Anemia (if the ulcer has bled).
12. Night awaking: thus normally occurs in patient with duodenal ulcer due to severe pain that is relieved by eating (Hinkle, Cheever, & Overbaugh, 2022).

Table 1: Comparison of Duodenal Ulcer and the Gastric Ulcer (Smeltzer, et al, 2021)

CRITERIA	DUODENAL ULCER	GASTRIC ULCER
INCIDENCE	<ol style="list-style-type: none"> 1. Age 30–60 2. Male: female 2–3:1 3 80% of peptic ulcers are duodenal 	<ol style="list-style-type: none"> 1. Usually 50 and over 2. Male: female 1:1 3. 15% of peptic ulcers are gastric
SIGNS AND SYMPTOMS, AND CLINICAL FINDINGS	<ol style="list-style-type: none"> 1.Hypersecretion of stomach acid (HCL) 2. May have weight gain. 3. Pain occurs 2–3 hours after a meal and often awakened when it is 1–2am and relieved by food ingestion 	<ol style="list-style-type: none"> 1 Normal–Hyposecretion of stomach acid (HCL) 2. Weight loss may occur 3. Pain occurs 1–2hours after a meal and rarely occurs at night and may be relieved by vomiting but ingestion of food does not help, sometimes increases pain
MALIGNANCY POSSIBILITY	<ol style="list-style-type: none"> 1. Rare 	<ol style="list-style-type: none"> 1. Occasionally
RISK FACTORS	<ol style="list-style-type: none"> 1. Helicobacter pylori, alcohol, smoking, cirrhosis, stress 	<ol style="list-style-type: none"> 1. Helicobacter pylori, gastritis, alcohol, smoking, use of NAISDs, stress
PAIN	<ol style="list-style-type: none"> 1. Burning, cramping pain across the epigastrium 	<ol style="list-style-type: none"> 1. Dull gnawing of burning sensation in the mid epigastrium or back

Diagnostic Investigation

1. Upper gastric intestinal tract endoscopy and biopsy to rule out cancer.
2. Stool analysis reveals occult blood or intestinal parasites.
3. Barium (meal) radiographic studies of the intestinal tract to reveal changes in the mucosa.
4. Computed tomography scan of the stomach and duodenum.
5. History from patient.
6. Full blood count (haemoglobin estimation).
7. Serum gastric levels.
8. Antigen test to detect presence of helicobacter pylori in blood.
9. Esophagogastroduodenoscopy (EGD) to determine the size and depth of the ulcer.
10. Presenting signs and symptoms (Hinkle, Cheever, & Overbaugh, 2022).

Specific Medical and Surgical Treatment

Peptic ulcer disease can be treated both medically and surgically. The aim of treating peptic ulcer disease includes:

1. To prevent complication and recurrence.
2. To alleviate symptoms of the diseases
3. To optimize the condition that promotes healing.
4. To decrease the offensive factors responsible for the ulceration. (Kumar & Clark, 2019).

Medical Treatment

According to Kumar and Clark (2020), advances in drugs therapy have dramatically changed the management of peptic ulcer disease and significantly improved its effectiveness. A variety of changes exist and the specific protocol for any particular patient determined based

on the preference of the physician and the patient unique profile. The goal of the management is to eradicate helicobacter pylori, manage gastric acidity, promote healing of the ulcer and prevents recurrence and complication and to alleviate symptoms. Drug therapy control peptic ulcer symptoms effectively often in a matter of days.

1. Antacids are given to neutralize the HCL. Eg, magnesium triscilicate, Aluminium Hydroxide.
2. Histamine 2 receptor antagonist is given to reduce gastric secretion. Eg, Cimetidine and Ranitidine.
3. Proton pump inhibitors are given to eliminate acid secretion. Eg. Omeprazole, Lansoprazole and Rabeprazole.
4. Mucosal protective agent is given to form a protective coat that prevents further excavation. Eg, Sucralfate, Misoprostol.
5. Antimicrobial agent is given to prevent further infection. Eg, Metronidazole, Amoxicillin.
6. Analgesics to relieved pain. Eg, Paracetamol, Tramadol.

Pharmacological Treatment

(According to standard Treatment Guidelines, Ministry of Health Ghana, 2017)

A. Treatment for Dyspepsia

First line treatment

Magnesium triscilicate, oral, 15mls 8 hourly (in-between meals and at bedtime to control dyspepsia).

OR

Aluminium Hydroxide, oral, 500mg 6hourly (in-between meals and bedtime)

Second line treatment

Omeprazole, oral,

Adult: 20mg daily for 4weeks. Repeat course if ulcer is not fully healed.

B. Treatment for NSAIDs–associated duodenal or gastric ulcer and gastro–duodenal erosions

Esomeprazole, Oral or omeprazole oral

Adult: 20mg daily for 4weeks. Repeat course if ulcer is fully healed

OR

Pantoprazole oral,

Adult: 20–40gm daily for 4weeks. Repeat course if ulcer is fully healed

C. Treatment for Bleeding Peptic Ulcer (Maybe an indication for surgery)

Esomeprazole, IV

Adult: 40mg daily

OR

Omeprazole, IV

40mg 12hours for up to 5days

D. For Helicobacter Pylori Eradication

Majority of patient presenting for duodenal ulcer are affected with helicobacter pylori.

Eradication of H. pylori should therefore be done using antibiotics.

Indications for Surgery in Peptic Ulcer

1. Failure of ulcer to heal.
2. Increase risk of bleeding.
3. Multiple ulcer sites.
4. Pylori or pre–pyloric ulcer recurrence (Hinkle, Cheever, & Overbaugh, 2022).

Surgical Intervention

According to Kumar & Clark (2020), surgery is used primarily for the management of complication such as perforation, suspected cancer and the treatment of the occasional intractable ulcer that is resistance to all standard therapy. Surgery procedures adopted are:

1. Vagotomy: This is the surgical removal of the vagus nerves. There are three types and these are, truncal, selective and highly selective.
2. Antrectomy: This is the surgical removal of the pylori (antrum) portion of the stomach and anastomose to duodenum (gastroduodenostomy or Billroth 1) or jejunum (gastrojejunostomy on Billroth 2)
3. Pyloroplasty: This is the surgical removal of the pyloric sphincter.

Nursing Management

According to Hinkle et al. (2022), nursing management of patient with peptic ulcer includes:

Position

1. Patient was made comfortable in a well prepared admission bed with enough pillows for comfort.
2. Patient was made to assume a normal position that was not contrary to her health, example supine position.
3. This helps the patient to relax and reduce pain.
4. The patient was positioned to avoid neck pain and joint stiffness.

Reducing anxiety/Reassurance

1. Assesses the patient level of anxiety and reassure that the patient is in the hand of competent and well-trained staffs that are always ready to offer care and support to ensure good health.
2. Introduced patient to other patients who have similar condition and have had their treatment waiting to be discharged.

3. Diversional activities such as watching of television and the use of slides pictures should be provided to divert patient mind from the condition.
4. Patient with peptic ulcer are usually anxious but their anxiety is always not obvious. Appropriate information is provided at the patient level of understanding, all questions are answered and the patient is encouraged express fears openly. Explanation of diagnostic test and administration of medication on schedule also help to reduce anxiety.
5. Interact with the patient in a relaxed manner and a relaxation method such as biofeedback, hypnosis, or behavior modification.
6. The patient family is also encouraged to participate in care and to provide emotional support.

Rest and sleep

1. A quiet environment should be provided by reducing noise to allow patient to get enough rest.
2. Windows are opened to allow ventilation.
3. Visitors are also restricted to allow patient to get enough rest and sleep.
4. Bed is made free from creases and cramps by straighten the bed linen. Warm beverages can also be served.
5. Warm bath with warm water, soap, sponge and towel are provided in order to relax patient and to induce sleep.
6. Teach patient rest and relaxation techniques, example guided imagery emphasizes the need to avoid stress.

Observation

1. Vital signs are checked and recorded which comprises of temperature, pulse, respiration and blood pressure.
2. Intake and output chart are also monitored to know patients fluid and electrolytes balances.
3. The desired effect and side effect of drugs served are also observed.
4. Side effects of drugs should be monitored and reported, as well as skin and mucous membrane for signs of dehydration.
5. Physical findings of epigastric or abdominal pain, nausea, vomiting, tarry stool, bleeding should be observed and recorded.

Personal Hygiene

1. Body hygiene is done by giving an assisted bed bath twice daily to prevent offensive odour and to remove microorganisms from the skin. Bony prominences which are prone to be sore.
2. Soiled bed linen should also be changed when dirty or wet to prevent bad odour and harbouring of microorganisms.
3. Oral hygiene should be done twice daily with toothpaste and toothbrush. This was done to prevent oral offensive smell and to prevent the harboring of micro bacteria.
4. Patient hair is also cared by washing it with soap and water and drying it if it is applicable.
5. Patient's hands and feet were cared for by soaking them in water and trimming the nail with nail clippers, washing and filing the nails. This will prevent harboring of microbes or prevents injuries from scratching.

Nutrition/Diet

1. The intent of dietary modification for patient with peptic ulcer is to avoid over secretion of acid and hypermobility in the gastric intestinal tract.
2. These can be minimized by avoiding extremes of temperature and over secretion from consumption of meat extract, alcohol and coffee. (Including decaffeinated coffee, which also stimulates acid)
3. Dietary compatibility becomes an individual matter. The patient eats food that can be tolerated and avoid those that produce pain. Certain substance such as spicy food causes severe pain and has to be avoided.
4. Smoking should be avoided as it has been showed to delay ulcer healing regardless of the therapy.
5. Serve small frequent and bland food. Avoid alcohol and give milk in between meals.
Patient is encouraged to take enough roughage to enhance bowel elimination.

Patient/Family Education

Patient and family are educated:

1. Identify factors that trigger the condition.
2. Modify lifestyle including health process that will prevent recurrence of ulcer pain and bleeding.
3. Plan for rest period.
4. Learn to cope with stressful situation.
5. Chew food thoroughly and eat in leisurely manner.
6. Eat meal in regular schedule.
7. Avoid eating large meal as they tend to over stimulate lactic acid secretion.
8. Adhere to prescribed treatment.
9. Report on signs and symptoms she experiences.

10. Avoid antacids that cause changes in bowel movement.
11. Avoid over the counter drugs unless prescribed by the doctor.
12. Encourage stress reducing activities.
13. Educate patient on medication to take at home, it doses, frequency, therapeutic effects and possible side effects and explain maximum complication.
14. Encourage patient for regular check ups

Complications

1. Hemorrhage with hematemesis and melena.
2. This occurs as a result of erosion of blood vessel due to the action of the HCL.
3. Pyloric obstruction–pyloric stenosis is the narrowing of part of the stomach (the pylorus) that lead into the small intestine. This occurs as a result of scar which forms when worn out tissues are been repaired.
4. Perforation–is the erosion of the ulcer through the gastric serosa into the peritoneal cavity without warning. It is an abdominal Catastrophe and requires immediate surgery.
5. Penetration–is the erosion of the ulcer through the gastric serosa into the adjacent structures such as pancreas, biliary tract or gastro–hepatic omentum.
6. Anemia, this occurs as a results of corrosive bleeding from the erode vessels.

Post–Operative Complications

1. Dumping syndrome.
2. Bile reflux (Smeltzer, et al, 2021)

Prevention of peptic ulcer disease

1. High intake of spicy and fried food should be avoided as much as possible.
2. Regular eating pattern should be established and abnormal long period between meals should be discouraged.

3. Intake of ulcerogenic drugs such as salicylates, other non-steroidal anti-inflammatory drugs and corticosteroids should be avoided.
4. Individual with blood type O should adopt good lifestyle in order not to be predisposing to the condition. As far as emotion/trauma leading to stress and anxiety should be reduced.
5. Smoking and alcohol intake should be avoided since they irritate the gastric mucosa (Hinkle, Cheever, & Overbaugh, 2022).

1.12 Validation of Data

This is the process of cross checking information collected from the patient and other relation to confirm that they accurate and precise. The purpose is to keep data as free from error, bias and misinterpretation. All data and information collected on the patient was confirmed by the patient and her mother, also during home visits most of the information given by miss H.N and family at the hospital were confirmed for example their house number. The validation of data on Miss H.N was also done by comparing the signs and symptoms exhibited by her, information from patient's folder and that of the literature review from textbook to get the differences and similarities. Information collected from various source concerning patient's diagnosis was free from bias and really proved the patient was suffering from Peptic Ulcer Diseases (PUD), hence the data collected was valid.

CHAPTER TWO

ANALYSIS OF DATA

2.0 Introduction

Waller (2019) defines analysis as the process of studying or examining something in depth in order to comprehend or explain it. The process of analysis entails drawing conclusions based on information gathered from a patient and a relative. The signs and symptoms are compared to what has been found in the literature and in various laboratory investigations. The nurse analyzes this data in order to determine the exact nursing diagnosis and develop appropriate nursing care plan for the patient. The nurse is able to identify the patient's problems, her strength, make nursing diagnosis, objectives and provide appropriate interventions based on data analysis. It comprises:

1. Comparison of data with standard
2. Patient/Family strength
3. Health problems
4. Nursing diagnosis

2.1 Comparison of Data with Standard

Information obtained from the patient is compared with those in literature review. These include diagnostic investigations, clinical features manifestation by patient, medical treatment given to patient, pharmacology of drugs administered to patient and complication of the patient condition reviewed with the actual ones observed.

1. Diagnostic Investigations/Test

Investigation/test according to Weller (2019) is the procedure performed to establish a diagnostic, to monitor a person's health, disease or the effectiveness of treatment. The literature points out: Full blood count, Blood urea electrolyte and creatinine to assess liver function.

The following investigation and test were carried out on Miss H.N

Ordered laboratory investigations were:

1. Full blood count
2. Blood film for malaria parasite
3. Stool analysis for helicobacter pylori
4. BUN (Blood Urea Nitrogen) and creatinine

The comparison of the diagnostic investigation ordered with the literature review

Table 2: Comparison of Diagnostic Investigation Review and Actual Investigation Done on the Patient.

DIAGNOSTIC TEST IN LITERATURE	DIAGNOSTIC TEST CARRIED OUT ON THE PATIENT
Patient's health history	Patient's health history was taken
Complete physical examination	Complete physical examination was done
Stool analysis	Stool analysis for H. pylori was done
Electrocardiogram	Electrocardiogram was not done
Blood Urea Nitrogen and electrolyte.	BUN was done, but electrolyte count was not done
Ultrasonography	Ultrasonography was not done
Urinalysis	No urine analysis was done
Chest/abdominal x-ray	No chest and abdominal x-ray were done
Full blood count	Full blood count was done
Blood film for malaria parasite (to rule out malaria)	Blood film for malaria parasite was done
BUN (blood urea nitrogen) and creatinine	BUN and creatinine were done

Comment on the Patient's Diagnostic Investigations

From the above table, the patient was ordered to do most of the investigations of the literature review with the exception of duplex ultrasonography, chest and abdominal x-ray, urinalysis and electrocardiogram. Fasting blood glucose on the other hand was not in the literature review. The ordered investigations were sufficient enough to diagnose the patient as suffering from peptic ulcer diseases.

Table 3: Diagnostic Investigation / Test Conducted on Miss H.N

Date	Specimen	Investigation	Results	Normal Values	Interpretation	Remarks
15/11/22	Blood	Haemoglobin level estimation	12.9g/dl	12.5-17.3g/dl	Patient's haemoglobin level was between normal range indicating no anaemia	No treatment given
15/11/22	Blood	White blood cell count	13.29 x 10 ^a /L	5.00-11.60 x 10 ³ /mcl	Above normal range indicating an infection	Antibiotics (amoxiclav and metronidazole was given
15/11/22	Blood	Red blood cell count	5.10 x 10 ⁶ /L	3.79-5.78 x 10 ⁶ /L	Indicating normal RBCs	No treatment given
15/11/22	Blood	Urea and creatinine estimation	Urea:3.44mmol/L Creatinine: 0.61mg/Dl	2.9-8.2mmol/L 0.59-1.35mg/dL	Normal kidney functioning	No treatment given No treatment given
15/11/22	Blood	Malaria parasite	No malaria parasite seen	Negative	She does not have malaria	No treatment given
15/11/22	Blood	Fasting Blood Sugar [FBS]	5.0mmol/L	3.5-6.5mmol/L	Patient has no hyperglycaemia	No treatment given
15/11/22	Stool	H. pylori test	Present	Should be absent in stool	Patient has H. pylori causing PUD.	Omeprazole and metronidazole were administered

2. Causes of Patient's Condition

Evidences from diagnostic investigation and patients presenting complaints suggest that the patient was infected with peptic ulcer- causing bacterium, helicobacter pylori and is experiencing the cardinal signs and symptoms of the condition. Also patient's condition was precipitated by ingestion of hot pepper (spicy)

Table 4: Comparison of Causes and Predisposing Factors in Literature to Those

Confirmed Table by Miss H.N

CAUSES AND PREDISPOSING FACTORS IN LITERATURE	CAUSES AND PREDISPOSING FACTORS OF PATIENT CONDITION
Age (most often in people between the ages of forty and sixty years)	The patient 20 years of age
Emotion or stress and anxiety	Patient experienced stress and anxiety
Infection of a gram–negative bacterial (helicobacter pylori)	Stool analysis reveals helicobacter pylori positive
Familial tendency	No traces of PUD in patient's family
Chronic use of Non–steroidal Anti inflammation Drugs eg. Diclofenac, aspirin	Patient does not abuse NSAIDs
Alcohol ingestion	Patient does not take alcohol
Intake of spicy foods	Patient eats spicy foods
Excessive smoking	Patient does not smoke
Irregularities in hormonal secretion e.g. estrogen and progesterone lower acid secretion	Patient has not done any hormonal test, however, she does not experience symptoms or side effect of any hormonal surge
Blood type, duodenal ulcers are common in blood type O and gastric ulcers in blood type A	The patient has AB positive blood group
Certain endocrine disease such as hyperthyroidism, pituitary tumour	Patient has no history of endocrine disorder
Impaired activity of the pancreas	Patient has no history of pancreatic disorders

Comments on Causes and or Predisposing Factors

From the above table, most of the cause/predisposing factor were experiences by the patient but the most cardinal causes of PUD (presences of helicobacter pylori) confirms that the patient actually suffered the condition and therefore needs medical treatment.

Table 5: Comparison of Clinical Features Reviewed to That Miss H.N Exhibited

CLINICAL FEATURES REVIEWED	CLINICAL FEATURES EXPERIENCED BY PATIENT
Dull gnawing pain or burning sensation in the mid–epigastrium or the back (epigastric pain)	Patient had epigastric pain
Feeling of hot water babbling in the back of the throat	Patient had no babbling in the throat
Vomiting	Patient had episodes of vomiting
Weight gain/weight loss depending on the type	Slightly weight loss was present
Pyrosis (heartburns)	Patient experiences heartburns
Bloating (abdominal tenderness)	Patient experiences bloating
Nausea	Patient had nausea and vomiting
Constipation or diarrhea	Slight constipation was present
Hematemesis (vomiting blood)	Patient had no blood in vomitus
Gastrointestinal bleeding	Patient had no bleeding in the gastrum
Tarry stools	Patient had no tarry stools
Anemia (if the ulcer bleed)	Patient had no low haemoglobin level
Night waking: this normally occur in patient with duodenal ulcer due to severe pain that is relieved by eating	Patient experienced several awaking due to severe abdominal pains

Comments on Patient's Clinical Features Exhibited

From the above table, patient exhibited most of the clinical features from the literature review, after comparing. This goes to confirm that, the patient really suffered from peptic ulcer disease

3. Medical Treatment Given To Patient

With references to the treatment indicated in the literature review, the following specific medications were prescribed for the patient:

Suspension Nugal O 15mls tds x 5days

Intravenous Dextrose in Normal Saline5% 2litres x24hours

Intravenous omeprazole 40mg stat then 40mg bd x 24 hours

Ringers Lactate 1litre x 24 hours

Intravenous Buscopan 40mg bd x 24 hours

Intramuscular Promethazine 25mg stat

Intravenous Amoxiclav 1.2g tds x 24 hours

Amoxiclav, oral 625mg bd x 7 days

Capsule Omeprazole 20mg bd x 7days

Intravenous Metronidazole 500mg tds x 24 hours

Metronidazole, oral 400mg tds x 7 days

Intravenous Tramadol 200mg in 500mls of Norma Saline

Table: 6 Comparison of Patient's Treatment with that of Literature Review

Treatment according to literature review	Treatment given to patient
Proton Pump Inhibitors are given to eliminate acid secretions, eg Omeprazole	Omeprazole was given
Analgesics to relieved pain, eg intravascular Tramadol, Buscopan	Tramadol was prescribed
Antimicrobial agent is given to prevent further infection, eg Metronidazole	Metronidazole was prescribed
Antacids are given to neutralize the HCL, eg Sodium carbonates, aluminum Hydroxide	Suspension Nugal O was given
Histamine 2 receptor antagonist is given to reduce gastric secretion, eg Cimitidine and Ranitidine	Histamine 2 receptors antagonist was not given
Mucosal Protective Agent is given to form a protective coat that prevents further excavation, eg Sucralfate, Misoprostol	Mucosal Protective Agent was not given

Comments on the Patient's Treatment

Based on the comparison of the patient's treatment with that of the literature review it shows clearly that the patient was given the correct management for her condition. Intravenous fluids Dextrose Normal Saline and Ringers Lactate were not outlined in the literature review but were prescribed for the patient due to her excessive vomiting episodes.

Table 7: Pharmacology of Drugs Administered to the Patient

DATE	NAME OF DRUG	DOSAGE AND ROUTE OF ADMINISTRATION	DOSAGE AND ROUTE OF ADMINISTRATION GIVEN TO PATIENT	CLASSIFICATION	DESIRED EFFECT/ACTION	ACTUAL EFFECT/ACTION OBSERVE	SIDE EFFECTS AND REMEDIES
15/12/22	Co-amoxiclav	<p>Adult dose: 1.2g tds for 7-10days Child dose: 3 months-18years, 30mg/kg tds, max. 1.2g tds for 7-10days>3months, 30mg/kg bd for 7-10days Route: intravenous or oral. Patient's dose: 1.2g IV x 24hours and then 625mg oral bdx7days</p>	Dosage: 625mg bd x 7days	Antibiotics, synthetic penicillin	To inhibits enzymes in the biosynthetic pathway of bacterial cell wall to resolve the infection	Signs and symptoms of infection subsided	<p>Diarrhoea, vomiting, nausea.</p> <p>Patient experienced none of these side effects</p>
15/12/22	Omeprazole	<p>Oral administration. Adult dose: 20-40mg daily x 4-8weeks Children dose:<20mg daily x 4-8weeks 10-20kg: 10mg daily x 4-8weeks 5-10kg 5mg daily x 4-8weeks. Patient dose: IV 40mg stat then bd x 7days</p>	Dosage : 40mg stat x 24 24hours	Proton Pump Inhibitors	To suppress acid secretion in the stomach to relieved epigastric pain and prevent erosion of stomach mucosa	Patient's epigastric pains were relieved indicating that hydrochloric acid secretion in patient's stomach was reduced	<p>Flatulence, headache, dizziness, constipation and depression.</p> <p>Constipation was experienced by patient and was served with high roughage diet and sips of water at frequent intervals.</p>

15/12/22	Intramuscular promethazine	Adult dose: 12.5-50mg. Route: oral, intramuscular, suppository Patient dose: 25mg stat intramuscularly	Doses : 25mg stat	Phenothiazine Antihistamine	Produce antiemetic effects by serving as a histamine (H1) and an alpha-adrenergic receptor antagonist	Patient was relieved of vomiting	Drowsiness, fatigue, hallucinations, dry mouth. Patient did not experience any of these.
15/12/22	Intravenous Hyoscine Butyl Bromide (Buscopan)	Adult dose: 20-40mg bd/tds x not more than 5days Patient dose: 40 mg bd x 24hours Patient's route: intravenously	Dosage 40mg bd x 24 hours	Antispasmodics	To relax smooth muscle spasm (cramps in the stomach and the intestine)	Patient was relieved of abdominal pains and discomfort	Dry mouth, itchy skin, sweating. These side effects were not observed
15/12/22	IV Ringers lactate	Amount to be given depends on the estimated senseless loss of fluid Patient dose: 1L in 24hours Intravenously	Dosage : 1000mls x 24hours	Crystalloid; isotonic solution containing sodium chloride, sodium lactate, calcium chloride, potassium chloride and bicarbonate	For fluid and electrolyte balance.	Patient's fluid and electrolyte balance was maintained.	Circulatory overdose and acidosis. None was observed.
15/12/22	IV dextrose in normal saline	Amount to be given depends on the estimated sensible loss of fluid. Patient's dose: 2L in 48 hours intravenously	Dosage: 5% 2litres x 24hours	Crystalloid; Hypertonic intravenous fluid	To prevent dehydration, maintain fluid and electrolyte balance and provide energy	Dehydration was prevented and fluid and electrolyte balance were maintain	Fluid overload and metabolic acidosis were not observed

15/12/22	Syrup Nugal O	Adult dose; 10-15mls x 5-7days. Patient dose: 15mls tid x 7 days Route : orally	Dosage : 15mls tds x 5days	Antacids suspension	Reduce stomach acidity by neutralizing gastric hydrochloric acid by preventing the secretion of acid	Hydrochloric acid secretion in patient's stomach was reduced and patient was relieved of pain	Nausea, constipation, diarrhea, headache. Patient experienced constipation which was managed with the intake of oral fluids
15/12/22	Metronidazole	Adult dose: 400/500mg tds x 5-7days Patient's dose: 500mg tds x 24hours intravenously and then 400mg tds x 7days orally	Dosage : 500mls tds x 24 hours	Antibiotics	Kills bacteria	Bacteria activities was suppressed and patient gradually relieved from symptoms	Flatulence, headache, dizziness, constipation and depression was managed. Constipation was experience by patient and served with high roughage diet and sips of water at frequent interval

From the table above, it can be seen clearly that Miss H.N was given the drugs accordingly and did not display any signs of undesired effects of the drugs administered. Patient's manifestation that could be associated to side effects of pharmacological therapy was also managed in the course of treatment successfully.

Complications

With references to the literature review the patient did not show any complication of peptic ulcer like perforation, stenosis or melena throughout the period of hospitalization which resulted in her early recovery.

Table 8: Comparison of Complications of the Patient Was With Those Outlined in Literature Review

Complications In Literature Review	Patient Complication
Haemorrhage with hematemesis	Haemorrhage with hematemesis was not developed by the patient
Pyloric obstruction	Pyloric obstruction was not experienced
Perforation	Perforation was not experienced
Melaena	Melaena was not experienced
Anemia	Anemia was not experienced

Comments on complication

No complication was observed during the period of interaction

2.2 Patient and Family's Health Problems

Strength according to Merriam (2015) is the quality that allows someone to deal with problems in a determined and effective way.

The following were the health problems identified through assessment of the patient:

1. Patient complained of epigastric pains-15/11/2022
2. Patient complains of loss of appetite-15/11/2022
3. Patient complained of constipation-15/11/2022
4. Patient has episode of vomiting-15/11/2022
5. Patient/family lack of knowledge on peptic ulcer disease-16/11/2022

2.3 Patient and Family's Strength

This involve activities the patient and family can perform in helping the patient recover (Harding, Kwong, Roberts, Hagler, & Reinisch, 2020)

1. Patient can verbalized and locate pain.
2. Patient can eat at least 1/3 of food served on normal sized plate.
3. Patient can verbalize the presences of constipation
4. Patient can state the number of times vomited
5. Patient/family is willing to learn about the disease condition (peptic ulcer).

2.4 Nursing Diagnoses

1. Acute pain (epigastric) related to ulceration of the stomach mucosa as evidenced by pain after meals-15/11/2022
2. Imbalanced nutrition (less than the body requirement) related to loss of appetite and abdominal pain-15/11/2022
3. Impaired bowel elimination (constipation) related to lack of dietary bulk intake evidenced by infrequent passage of hard formed stool-15/11/2022
4. Risk for fluid volume deficit related to episodes of vomiting-15/11/2022
5. Deficient knowledge (patient and family) related to causes, signs and symptoms, treatment and preventive measures as evidenced by inappropriate responses to basic questions on the disease (peptic ulcer).16/11/2022

CHAPTER THREE

PLANNING FOR PATIENT AND FAMILY CARE

3.0 Introduction

Planning is the third phase of the nursing process and it involves setting of goals, determination of priorities and planning a care to prevent or relief patient's health problems and as well as identifying nursing intervention to meet the set goals. It is the process of developing a plan and establishing goals to achieve a desire outcome. Nursing care plan entails nursing diagnosis, objectives/outcome criteria, nursing orders, interventions and evaluations. It helps the nurse to strategies and plan appropriate care for the patient to promote recovery and discharge

3.1 Objectives/Outcome Criteria for Patient and Family Care

The following objectives and criteria were set for patient based on nursing diagnosis set

1. Patient would be relieved of epigastric pain within 24 hours as evidenced by;
 - a. Patient verbalizing relief of epigastric pain.
 - b. Nurse observing patient having a relaxed facial expression.
2. Patient's nutritional balance would be restored within the 48 hours as evidenced by;
 - a. Patient verbalizing that she could eat 1/3 of food served on normal sized plate to her.
 - b. Nurse observing patient has gained a little weight than before.
3. Patient would resume her normal elimination pattern within the period of 48hours as evidenced by;
 - a. Patient verbalizing that she is able to pass normal semi solid stool without any difficulty.
 - b. Nursing observing the patient reporting the urge to defecate as appropriate.
4. Patient would maintain normal body fluid volume within the period of 24 hours as evidenced by;

- a. Patient maintaining a normal skin turgor.
 - b. Nurse observing the absence of sign of dehydration.
5. Patient and relative would gain adequate knowledge about the condition within the period of 24hours as evidenced by;
- a. Patient and relative verbalizing that they have a better understanding of the condition.
 - b. Nurse observing that patient and relative are able to answer some questions correctly when asked on the disease condition.

Table 9: Nursing care plan for Miss. H.N

DATE /TIME	NURSING DIAGNOSIS	NURSING OBJECTIVE /OUTCOME CRITERIA	NURSING ORDERS	NURSING INTERVENTION	DATE /TIME	EVALUAION	SIGN
15/11/2022 2:30pm	Acute pain (Epigastric pain) related to ulceration of the stomach mucosa as evidenced by pain after meals	Patient would be relieved of epigastric pain within 24hours as evidenced by 1.Patient verbalizing relief of epigastric pain 2.nurse observing patient having a relaxed facial expression	1.Reassure the patient/family about the competencies of the health care providers in her care 2. Access the pain level of the patient, using the pain rating scale. 3. Ensure noise reduction to encourage rest. 4.Involve patient in diversion therapy 5. Identify factors contributing to pain and intervene accordingly 6. Administer prescribed drugs to relieve the pain.	1. Patient/family were reassured that they were in safe hands and medications prescribed were to relieved pain and also to improve her general health. 2. pain level of the patient was assessed using the pain rating scale and recorded 8 out of 10 3. All forms of noise were reduced, eg by restricting visitors, reducing volume of radio and television. 4. Patient was involved in conversations, watching of television to divert her mind of her pains and worries. 5. Through interaction with the ward nurses and doctors, excess secretion of gastric acid and, an irregular food intake were identified as precipitating factors to her pain. Omeprazole and Nugal O were administered as prescribed to aid in suppressing acid release and reducing her pain. 6. Prescribed drugs such as tramadol was administered to the patient to relieved her pain.	16/11/2022 2:30pm	Goal was fully met as 1.patient verbalized she was comfortable and relieved from epigastric pain 2. Nurse observing patient having a relaxed facial expressions.	A.F

<p>15/11/2022 2:35pm</p>	<p>Imbalance nutrition(less than the body requirement) related to loss of appetite and abdominal pain evidenced by inadequate dietary intake</p>	<p>Patient nutritional status would be restore within 48 hours as evidenced by 1. Patient verbalizing that she could eat 1/3 of food served on normal sized plate 2. Nurse observing patient has gained weight than before.</p>	<ol style="list-style-type: none"> 1. Assist patient in performing mouth care. 2. Serve patient a well – balanced diet attractively. 3. Encourage patient to chew food slowly and allow time to swallow. 4. Educate patient not to take irritating and strong spicy foods as they might precipitate her pain. 5. Serve patient’s food in bits and in frequent interval. 6. Plan diet with patient and family considering her favorites. 	<ol style="list-style-type: none"> 1. Patient was assisted with mouth care before and after meals. 2. Patient’s well–balance food was served attractively to stimulate appetite. 3. Patient was encouraged to chew food slowing and allowing time to swallow to enhance easy digestion. 4. Patient was educated not to take irritating food such as spicy foods. 5. Patient’s food was served in a bits and relative encourage to always provide food in frequent interval. 6. Diet was regularly planned with patient and relative. 	<p>17/11/2022 2:35pm</p>	<p>Goal fully met as: 1. Patient verbalizing that she could eat half of the food served. 2. Nurse observing patient has gained weight.</p>	<p>A.F</p>
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<p>15/11/2022 2:50pm</p>	<p>Impaired bowel elimination (constipation) related to lack of dietary bulk intake as evidenced by infrequent passage of hard formed stool.</p>	<p>Patient would be relieved of constipation within 48 hours as evidenced by; 1. Patient verbalizing that she is able to pass normal semi solid stools without straining. 2. Patient reporting the urge to defecate, as appropriate.</p>	<ol style="list-style-type: none"> 1. Reassure patient/family. 2. Serve patient with light diets. 3. Encourage patient to do active exercise. 4. Encourage patient to take in adequate fluid to promote her bowel functions. 5. Educate patient on the importance of responding to her bowel as soon she feels the urge. 6. Educate patient to take high fiber diet frequently. 	<ol style="list-style-type: none"> 1. Patient/family was reassured to allay anxiety. 2. Patient was served with light diets (such as soup and porridge) to help soften stool. 3. Patient was encouraged to perform active exercise to facilitate bowel movement. 4. Patient was encouraged to take in more fluids to promote her bowel functions. 5. Patient was educated to attend to her bowel when the need arises. 6. Patient was educated on the need to take high fiber diet frequently. 	<p>17/11/2022 2:50 pm</p>	<p>Goals fully met as: 1. Patient verbalized that she could pass stool freely without straining or difficulty and 2. Nurse observing patient reporting the urged to defecate as appropriate.</p>	<p>A.F</p>
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15/11/2022 3:30pm	Risk for deficits fluid volume related to episodes of vomiting	Patient would maintain normal body fluid volume within the period of 48 hours as evidenced by; 1. Patient maintaining a normal skin turgor. 2. Nurse observing the absence of signs of dehydration.	1. Assess patient's fluid status and monitor strictly. 2. Observe patient for signs of dehydration such as pitting of the skin and appearance of the skin. 3. Maintain and keep strict intake and output. 4. Encourage patient to drink more than 1500mls of fluids per day. 5. Remove unpleasant articles from patient bedside or seen. 6. Provide frequent oral care for patient.	1. Patient fluid status was constantly assessed and monitored with strict intake and output monitoring from and findings reported. 2. Patient was observed for signs of dehydration such as skin turgor and the appearance of the skin. 3. Patient intake and output was maintained in the chart. 4. Patient was encouraged to drink more than 1500mls of liberal fluids per day to replace loss fluids. 5. Unpleasant article such as bed pan and urinals were removed from patient sight. 6. Frequent oral care was provided for patient to boost his appetite	17/11/22 3:30pm	Goals fully met as : 1. Patient maintained a normal skin turgor. 2. Nurse observed the absence of signs of dehydration.	AF
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16/11/2022 4:00pm	Deficient knowledge (patient and family) related to causes, signs and symptoms, treatment and preventive measures as evidenced by inappropriate responses to basic questions on the disease (peptic ulcer)	Patient and relatives would gain adequate knowledge about the condition within the period of 24hours as evidenced by: 1. Patient and relatives verbalizing that they have a better understanding of the condition. 2. Nurse observing that patient and relatives are able to answer some question correctly when asked on the disease condition.	<ol style="list-style-type: none"> 1. Create a conducive atmosphere for learning. 2. Assess patient and families' knowledge about the condition and build on their preoccupied knowledge 3. Explain the causes, signs and symptoms, treatment and preventive measures to the patient and family to enable them obtain sufficient knowledge about the condition. 4. Encourage patient and family to ask questions about the condition and provide answers tactfully. 5. Evaluate and reassess the education by asking questions for feedback. 	<ol style="list-style-type: none"> 1. A conducive atmosphere for learning was provided such as reducing TV/radio volume 2. Patient and families' knowledge was assessed and scientific information were given to them. 3. The condition including the causes, sign and symptoms, treatment and preventive measures were explained to the patient/family to their understanding. 4. Patient and family was encouraged to ask questions about the condition and tactful answers were provided. 5. Education was evaluated and reassessed by asking questions and they mentioned gastric pains, heart burns, nausea and vomiting as some of the signs and symptoms of peptic ulcer diseases 	17/11/2022 4:00pm	Goals fully met as: 1. Patient and relatives verbalizing that they have a better understanding of the condition. 2.nurse observing patient and relatives are able to answer some questions correctly when asked on the disease condition	A.F
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CHAPTER FOUR

IMPLEMENTING PATIENT/FAMILY CARE PLAN

4.0 Introduction

This chapter is the fourth part of the nursing process, which deals with the detail description of the actual nursing care rendered to the patient and family during the period of hospitalization. The implementation of nursing orders in the care plan ensures that the nurse performs established activities on the patient. Such activities are geared towards the promotion of patient's recovery and to limit complications if any.

4.1 Summary of Actual Nursing Care Rendered to Miss H.N and the Family

The nursing care rendered to miss H.N started on the day of admission (15/11/22) and continued till the care was terminated. The management aimed at making patient comfortable, promoting early recovery and preventing complications, the summary of the care is written on daily basis which goes as follows:

4.1.1 Day of Admission (15/11/22)

Miss H.N was admitted to the Female ward of the Holy Family Hospital, Techiman on bed 19 on the 15/11/22 at 2:00pm ambulatory in the company with a nurse and a relative. On arrival they were welcomed into the ward, patient particulars were checked, mainly folder as a confirmation if the patient was indeed admitted to the ward, on observation patient was a little weak and facial expression suggesting she was in pain. Patient did complain of constipation, vomiting, loss of appetite and epigastric pain, she was also diagnosed of peptic ulcer disease. Her vital signs were checked and recorded as shown in appendix.

Patient complained of epigastric pain at 2:30pm. A nursing diagnoses of acute pain (epigastric pain) related to ulceration of the stomach mucosa was formulated, an objective was set to reduce

the pain within 24 hours then gradually relieved the pain to allay her anxiety. She was assisted to assume a prone position to help relieve the pain. Miss H.N level of pain was assessed by using the pain rating scale, of which she scored 8 out of 10. Factors that aggravated the pain such as spicy foods and beverages that contain caffeine were reviewed and patient was encouraged to avoid them. Diversion therapy like conversing with the patient was ensured. Medication connecting to relief the pain was given which includes; Omeprazole, Tramadol, Nugal O, and hoping to achieved a desire effects.

At 2:35pm patient complained of loss of appetite as evidenced by patient not been able to eat 1/3 of food served on a normal sized plate, a risk diagnosis of imbalance nutrition (less than the body requirement) related to loss of appetite and abdominal pain was formulated. An objective of restoring her appetite and nutritional state within the period of 48hours was formed. Food was served attractively to stimulate her appetite; she was assisted with mouth care before and after food. Patient was educated on the avoidance of spicy foods, she was also encouraged to chew food slowly and allow time to swallow to enhance easy digestion. The patient's food was served in bits with her favourite meals. All nauseating substances such as bed pan, or urinals were removed from the environment.

The patient in the morning did complain of not been able to pass stools, but it was associated to poor and inadequate feeding. She was asked to observe her bowel till afternoon. At 2:50pm patient has not pass stools. Nursing diagnosis of impaired bowel movement (constipation) related lack of dietary bulk intake as evidenced by infrequent passage of hard formed stool and an objective was set for patient to regain her normal stool elimination within the period of 48hours. In order to achieve this set of objective, the patient was reassured that she would regain her normal bowel elimination pattern after care had been rendered. Patient was made comfortable in

bed free from creases and crump, patient was served with light diet such as soup and porridge, she was educated to take high fiber diet. Patient was encourage to engage in exercise, patient was also encouraged to take enough fluid.

Patient took rice balls and groundnut soup as her lunch. . Vital signs were checked and recorded.

Suspension Nugal-O 15mls, IV amoxiclav 1.2g, IV Metronidazole 500mg were administered.

At 3:00pm Patient took Tuo- Zafi with okro soup. After 30minutes patient vomited all the food she ate.

At 3:30pm, a nursing diagnosis of risk for fluid volume deficit (potential) as evidenced by vomiting which was confirmed by the nurse on duty at that time. An objective was set to help patient to maintain normal body fluid volume within 48hours and throughout her period of hospitalization. To achieve this set objective patient was encouraged to drink at least 1500mls of liberal fluids as per her choice daily to replace fluid lost. An intake and output chart was maintained to know the balance between fluid intake and fluid output. Signs and symptoms of dehydration such as sunken eyes, oliguria and loss of skin turgor were assessed. All nauseating items such as bed pan and urinals were removed from the environment to avoid precipitating her vomiting. Prescribed Antiemetic (Intramuscular Promethazine 25mg stat) was administered as prescribed. All procedures and routine care carried out on the patient were explained to her before initiation to ensure her cooperation. Patient and family were also encouraged to ask questions and answers were provided in simple terms to their level of understanding. Patient and family were interacted in a relaxed manner. They were encouraged to participate in the care and to provide emotional support to the patient. She was served with jollof rice and fish at 5:50pm. She then took her bath around 7:30pm. At 10:00pm vital signs were checked and recorded as indicated in the appendix.

At 10:00pm IV Amoxiclav 1.2g and IV Metronidazole 500mg were administered, also Suspension Nugal O 15mls was administered to help relieve patient of epigastric pain. After 10:00 pm the nurses assured her of no interruption till the next morning and she slept

4.1.2 Second Day of Admission (16/11/22)

The patient woke up around 5:00am to perform her oral hygiene and took her bath. At 6:00am vital signs were checked and recorded as displayed in the appendix.

Prescribed drugs were served and documented. Patient took in Tombrown and bread as her breakfast. Doctors came around 8:30am for routine ward rounds and reviewed Miss H.N. The ward doctor ordered that she should continue the treatment as prescribed on the day of admission. At 10am vital signs were checked and recorded as in appendix.

Capsule Omeprazole 20mg and Suspension Nugal O 15mls an hour before and two hours after meals were served. Vital signs were checked and recorded at 2:00pm as indicated in the appendix.

At 2:30pm an evaluation was made on the objective set to help relieve miss H.N of an acute epigastric pain. Patient verbalized she was comfortable without any pain and nurse observed patient having a relaxed facial expression, hence goal was fully met.

At 4:00pm during interactions with the patient, it was evident that miss H.N and family had less knowledge on causes and management of peptic ulcer diseases (PUD). A nursing diagnosis of knowledge deficit related to causes, signs and symptoms, treatment and preventive measures of PUD as evidenced by inappropriate responses to basic questions on the diseases (peptic ulcer). An objective was set for patient and family to have enough knowledge on the disease condition within 24hours

Since the patient was relieved from her previous abdominal discomfort. To achieve this she was taken to a side room for complete confidentiality and conducive atmosphere for learning. The family was asked to join in the education process. The condition including causes, signs and symptoms, treatment and preventive measures were explained to Miss H.N and family. They were encouraged to ask questions about the condition and tactful answers were provided. The education was evaluated by asking patient/family for feedback which they answered correctly.

Miss H.N ate Tuo-Zafi and okro soup as her supper.

At 6:00 pm, Capsule Omeprazole 20mg was administered and vital signs were checked and recorded as in the appendix. Patient took her bath,

At 10:00 pm patient's vital signs were checked and recorded as in the appendix,

Suspension Nugal-O 15mls was served at 10:00pm and she slept afterwards

4.1.3 Third Day of Admission, (17/11/22)

On the 17th November, 2022, Miss H.N woke up at 5:20am, brushed her teeth and took her bath. Her vital signs were checked and recorded. Due medications were administered. She had wheat porridge as advised for her breakfast which was served in bits.

Capsule Omeprazole 20mg and Suspension Nugal-O 15mls were served.

The ward doctor came as usual at 8am for routine ward rounds to review the patients including Miss H.N. This time he asked the patient about current complaints but miss H.N said she is doing well as all her abdominal pains had subsided, not vomiting anymore and had regained her appetite. Patient took rice and stew as her lunch. The food was served attractively, and she was encouraged to chew it slowly and allowing time to swallow to enhance digestion. At 10am vital signs were checked and recorded as in appendix.

At 2:00 pm Suspension Nugal-O 15mls, and oral metronidazole 500mg were served to relieve patient of pain and to inhibit bacteria activity respectively, after that vital signs were checked and recorded as in appendix.

At 2:35pm, the objective set to help restore patient's nutritional status on 15th November, 2022 was evaluated and goal was fully met as patient verbalized that she could eat well as she used to eat before being admitted and nurse observing that patient is able to eat 2/3 of food served on normal sized plate.

At 2:50pm, the objective set on 15th November, 2022 to relieved patient of constipation was evaluated and the goal was fully met as patient verbalizing she was able to pass semi solid stools freely and nurse observing patient reporting the urged to defecate as appropriate.

At 3:30pm, the objective set to maintain patient's normal fluid volume within the period of 48 hours and throughout the period of hospitalization on 15th November, 2022 was evaluated and goal was fully met as patient verbalised absence of vomiting and nurse observed no signs of dehydration.

Patient vital signs were checked and recorded as displayed in the appendix

At 4:00pm patient's cooperation was encouraging and gave correct answers to questions on her condition, therefore objectives set on 16th November, 2022 to help patient and family gain adequate knowledge about the disease condition was fully met. Patient took banku and okro soup as her supper.

Patient was left into the care of the afternoon staff and I embarked on my first home visit.

At 6:00 pm Capsule Omeprazole 20mg and tablet Amoxiclav were administered. Vital signs were checked and recorded as in appendix.

Patient took her bath and went to bed at 9:00 pm.

At 10:00 pm patient's vital signs were checked and recorded as recorded in appendix
Suspension Nugal-O 15mls was served and recorded.

4.1.4 Fourth Day of Admission (18/11/22)

Miss H.N woke up at 5:30am, performed oral hygiene and took her bath as it marked the third day of her admission. Patient took tea and bread as her breakfast.

Patient's condition was good since the problems which were identified were all being worked on so as to relieve her of all of them and possibly prevent complications from setting in.

At 6:00 am, patient's vital signs were checked and recorded as in appendix.

Capsule Omeprazole 20mg, Tablet amoxiclav 625mg, Tablet metronidazole 400mg and Suspension Nugal-O 15mls were administered under direct observed therapy.

At 8:30am the ward doctor came to review the patient and ordered that she should continue her medications and possibly would be discharged next day as her condition was improved as desired. At 10am vital signs were checked and recorded.

At 2:00pm vital signs were checked again and recorded as in appendix.

Suspension Nugal-O 15mls and tablet metronidazole were administered after assessing vital signs. Patient took banku and groundnut soup as her supper.

At 6:00pm capsule Omeprazole 20mg and tablet Amoxiclav 625mg were administered

Patient took her bath and slept at 9:00 pm. Vital signs were checked and recorded.

At 10:00pm patient vital signs were checked and recorded, vital signs checked and recorded as in the appendix.

Suspension Nugal-O 15mls and tablet metronidazole 400mg were administered and patient slept.

4.1.5 Fifth Day of Admission (19/11/22/ Day of Discharge)

On the fourth day of admission, Patient woke up at 5:10 am, brushed her teeth and took her bath without assistance. According to the night nurse patient had a sound sleep. Patient took tomato brown and bread as her breakfast.

Miss H.N vital signs were checked and recorded at 6:00am as shown in the appendix.

The ward doctors on their usual rounds reviewed the patient and declared her fit to go home and continue her medication especially the Peptic Ulcer regimen.

The need to avoid stress was emphasized. The patient was also advised to avoid caffeinated and spicy foods, and avoiding missed meals as well as eating in bits and on frequent basis. Miss H.N was educated on how to take the drugs, its therapeutic and adverse effects and the need to comply with it was emphasized. Patient was discharged and to continue the following drugs;

Capsule Omeprazole 20 mg bd x 7

Suspension Nugal-O 15mls tid x 7

Tablet Metronidazole 400mg tds x 7days

Tablet Amoxiclav 625mg bd x 7days

Miss H.N was scheduled to come back for review on 5th December, 2022 and was encouraged on the need to stick to the review date. Patient was encouraged to report to the hospital earlier than the scheduled review date if she feels the condition is relapsing. Arrangements were made with the patient and her family about second home visit on the 23rd November, 2022. The family were excited that their ward was feeling fine and been discharged.

The doctor prepared and signed the discharge summary. Patient's date of discharge, diagnosis and state of her condition were entered into the Admission and Discharge book and Daily ward

state sheet. The mother was accompanied with Patient's folder to accounts department to settle any addition bills and subsequently to the pharmacy to collect additional prescribed drugs. Clearance note from the accounts department was received by the mother and also medications collected from dispensary. They were helped to pack their belongings after her cannula was removed. Family thanked the staff and the student nurses on duty for their good care rendered to miss H.N/family. They also assured to stick to all medical advice given to them. They were then accompanied to the road side and bade them goodbye. They took a tricycle from the roadside and assured to call the ward when they reach home. The bed linen was removed and discarded into a receptacle to be taken to the laundry. The bed and the side locker were disinfected with a 0.5% bleach solution and left to dry.

4.2 Preparation of the Patient/Family for Discharge and Rehabilitation.

Preparation of patient/family for discharge started from the day of admission when the patient was informed that the hospital was not going to be her permanent living environment but rather, she would be discharged home as soon as her condition was stable. During admission, it was observed that the patient and her relatives were disturbed about the condition and the long stay at the hospital. They were therefore reassured of the competent team she is involved with, and that she would recover soon and be discharged home through their cooperation with the health team. Through these encouraging words they were relieved of their worries. They were educated on the disease condition (disease process, cause, signs and symptoms, treatment, preventive measures and complications) and the outcome of care given.

Miss H.N was asked to have adequate rest and sleep. She was also educated on the significance of rest and sleep as it enables the body to function without disturbance in metabolism. She was encouraged to take her drugs as prescribed to prevent relapse of her condition and complications.

Patient was also encouraged to come back for review on the Monday, 5th December 2022 as schedule and was encouraged to report earlier to the hospital when she notice any signs and symptoms. Miss H.N and family were advised to avoid purchasing over-the-counter drugs and the use of herbal preparation but rather come to the hospital anytime any unusual symptoms appear. Patient and family were further educated on the significance of a well-balanced diet in maintenance of good health. They were also advised to continue taking balanced diet and also avoid purchasing of food from food vendors and to avoid excessive intake of spices, hot pepper, caffeinated foods and alcohol. Patient was encouraged to avoid missing meals and food should be well chewed, eaten in bits and on regular intervals. Patient and family were also educated on the significance of exercise which was tolerable.

As part of the preventive measures, the patient and family were educated on the need to keep their environment clean by weeding bushes, cleaning gutters and disposing of refuse properly to reduce the risk of getting infections as it could lower their immunity.

In addition, they were taught the need for good nutrition such as well-balanced meals rich in proteins and vitamins to protect and aid in quick healing of wounds.

4.3 Follow up/Home visits/Continuity of Care.

Follow up or home visit is a friendly but purposeful visit to the patient house environment with the aim of identifying problems, preventing disease, promoting and maintaining health and prolonging life through health education, counselling and nursing care. The visit is also to assess the use of available resources at patient's home as well as in the community that can be used to solve actual and potential health problems. It also helps to monitor patient's progress after discharge.

4.3.1 First Home Visit (18th November, 2022)

The first home visit was made on the third day of admission while Miss H.N was still on admission on the 17th of November, 2022. The objective for the visit was to be familiarized with patient's home environment and to double check the information provided by the patient, whilst gathering enough information that would be relevant in the care and education of the patient. The visit was also to identify any factor that had contributed to her illness. The journey from the hospital to their house was about 15minutes' drive. I arrived there around 4:20pm.

Upon arrival to the house, I greeted and careful observations were made in the environment. The house was located near the Techiman magazine area. The patient mother was very surprised to see me, she claims I did not even call to inform her before embarking on my journey, quickly the patient's mother started arranging the environment because it was a little messy, apologized was made concerning the messed environment, then offered me a seat near the door. Miss H.N's siblings asked how she was doing after their visit to her the other day after I finished introducing myself to them I answered them according to her current state as she was picking-up gradually and hope to be discharged as soon as possible. Their house was located near the magazine area.

It was a three bedroom house with a total of six members, thus my patient, her parents and her other three siblings with no vulnerable person such as pregnant women, aged or children under five. The house is situated close to Grace Private Hospital. They were using a locally made rubbish bin without a cover. The other two siblings too were half naked roaming on the environment. Mosquito net was well fixed in their various rooms after we later entered their rooms, but they said they do not often use them. They had this small traditional kitchen in which the mother use to fry the chicken and as well as cook there. The place seems a little unkept from a glance from where I was sitting at first. According to the mother, they drink from both pipe-

borne water and sachet mineral water, but mostly depend on pipe water for most drinking, cooking and washing. They cook their own food ranging from fufu, banku, T-Z, rice ball, rice and many more. They eat all kind of meats except what their religion forbids them to eat, she gave an example of meat which includes; an already dead animal, pork etc.

The mother added that the water that they mostly depend on is the pipe born water. Miss H.N and the sibling always fetch them to the house and stored in a barrel and some gallons. They also have a plastic rubber which they keep their refuse which was seen without a lid. They have a tank in which they dispose their rubbish which is always taken by the big cars when full to the main refuse dump site in the town but off late the car do not come to pick it again, this has made them to dispose it on the floor near the rubbish tank according to the mother. This also makes them to be at risk of contracting cholera because their house was a little closer to the refuse dump. Near their pouch, they have a barrel in which they store fetch water but it is not covered. They were asked to cover the barrel tight to prevent mosquitoes' breed. I intentionally asked of their wash room but the mother said they use public toilet since they do not have their own. They were educated on water, food and environmental hygiene to help them improve on their health especially since they live near the refuse dump. They were much educated to eat hot food hot and cold food cold and should learn the balance of contaminated food to the normal, not allowing flies to come into contact with their food and to always keep food covered. They were emphasized on the need to drain any pool of water found in their environment. They were further educated to pour oil-base agents on waters that cannot be drained, to interrupt the life cycle of mosquitoes. They were asked to find a cover to their rubbish bin. Last but not the least they were asked to find a way and build their own place to ease themselves since the public toilet is not

healthy for them. They were applauded for having fixed nets in all rooms and encouraged to always use them.

The family were educated on the causes/risk factors of peptic ulcer disease including excessive alcohol intake, psychological stress, Helicobacter Pylori infection and genetic predisposition. Miss H.N's parents were taken through the preventive measures of the condition which included stress reduction since a hectic lifestyle and an irregular schedule may interfere with regular feeding. Avoidance of smoking and excessive alcohol intake, limiting the intake of caffeinated beverages, the need to adhere to personal and environmental hygiene methods to prevent infection, and also the need to avoid over-the-counter medications such as Aspirin, Diclofenac and Ibuprofen ingestion were also emphasized.

There were also advised to limit the buying of food from food vendors. All questions were answered to their satisfaction in a tactful manner. Permission was sought to adjourn the conversation to another time. They were goodbye and thanked for their cooperation. On arrival to the hospital, the observations and adjustments made during the home visit was communicated to the patient to also adhere to them for complete wellbeing in the house environment.

4.3.2 Second Home Visit (23rd November, 2022)

On the 23rd November, 2022, second home visit schedule with the patient and family's permission. The objective was to assess the health status of the patient after discharge, to remind patient and relative of review date/day, to find out whether the adjustments made on the previous visit had been adhered to, and to stress on the need for completion of treatment regimen.

Upon arrival to the house at 1:30pm, miss H.N and her family were met sitting in the pouch chatting. They were greeted and they offered a seat. They already knew about the reason for the

visit, which was briefed to them on phone as well as the date to be visited before the journey. They were told the mission of the visit and they showed glad humour about the visit.

On assessment, Miss H.N's condition had improved more after discharge. There were no vomiting, constipation, fever nor abdominal pains and she ate well. She had been taken her drugs accordingly and had not experienced any major side effects since discharge. On a quick look around, a barrel which was opened and filled with water was covered and there was no stagnant water around their house. The Patient and family were applauded for sticking to the previous advice. They were encouraged to maintain such a good living practice.

Miss H.N and family also verbalized that they were constantly sleeping in mosquito nets and always make sure food is eaten in their good states as advised and are also adhering to the preventive measures of peptic ulcer disease that they were educated on. Miss H.N. was encouraged to take the remaining medications as prescribed. They were reminded again on the need to maintain good personal and environmental hygiene, and also the review date as scheduled on 5th December, 2022.

Miss H.N and family were informed about handing them over to a community health nurses during next home visit for continuity of care. After chatting for about thirty minutes, permission was sought to leave. An escort to the roadside was made where a vehicle was taken for the return journey.

4.3.3 Day of Review (5thDecember, 2022).

On 5th December, 2022, Miss H.N Came alone and was met doing well at the Out-Patient Department during assessment and greetings. She was assisted to retrieve her folder from the records department. Her vital signs were checked and recorded at 8:30am as:

Temperature	36.9oC
Pulse	90bpm
Respiration	22cpm
Blood pressure	110/70mmHg

Her weight was also checked and documented as 55kg. She proceeded to the consulting room where she was reviewed by a physician assistant. There were no complaints on the day of review. Miss H.N was declared fit but asked to continue with her medication during the consultation with the doctor. The doctor encouraged her to avoid spicy foods, red pepper, irregular eating, herbal and Over-The-Counter medications, for a better health outcome. The patient brought in some drugs to the doctor to verify if she could take them. She was reminded on the dosage and asked to continue taking as advised. Patient was advised on a balanced diet, observation of her personal and environmental hygiene. Patient was also reminded on the third, and probably last home visit to properly terminate care. She was escorted to the hospital gate and bade farewell and to extend greetings to her entire family.

4.3.4 Third Home Visit (9th December, 2022)

The last home visit was made on 9th December, 2022 at 4:00pm. The main aim of the visit was to find out how Miss H.N and her family members were doing and to terminate the care by introducing them officially to the Community Health Nurses who was to continue with the care. Patient and family were happy on seeing an accompanied community health nurse. Upon assessment and through interacting with Miss H.N, she was fine and gave no further complains. The other family members were also fine with no complaints as they expressed gratitude for this family care. The environment was in good order. All adjustment in the house environment was followed as advised.

They were educated on the need for periodic medical check-ups, stress reduction, drug regimen and dietary regimen.

They were officially introduced to the community health nurse, Miss F.M who promised to do the follow up visit and give any health information which would be needed by patient and family.

Though it was a difficult task terminating the care with the family, as usual it did happen. The interaction was officially brought to a halt while the community health team, through Miss F.M offered to continue the visit as and when possible but often. The family expressed their gratitude about the knowledge acquired and assured to follow all advices. They were thanked for cooperation and permission was sought to leave at 6:00pm

CHAPTER FIVE

EVALUATION OF CARE RENDERED TO PATIENT AND FAMILY

5.0 Introduction

Evaluation in simple terms is the outcome of nursing actions against the anticipated goals and it is the final step in the nursing process (Hinkle, Cheever, & Overbaugh, 2022). It entails the continuous assessment of the care and finding out whether the set objectives for meeting family/patient health needs have been achieved. The chapter gives information about the statement of evaluation, amendment of nursing goals and the termination of the care rendered to the patient and family.

5.1 Statement of Evaluation

Throughout the period of admission of miss H.N, five health problems were identified and objectives were set to solve them. Below is the summary of the interventions carried out and to what extent the goals were met.

Patient was relieved of epigastric pain

On the 15th November, 2022 on admission at 2:30pm, a nursing diagnosis of acute pain (epigastric pain) related to ulceration of the stomach mucosa was formulated. Objective was set to help relieve patient's pain within 24 hours. Various nursing interventions were carried out to meet the objective set. Patient was reassured of measures put in place to help relieve the pain to allay anxiety. Patient was encouraged to assume the prone position to help relieve the pain. Patient's level of pain was assessed on a scale of 0-10 to know its severity. Factors that aggravate the pain such as spicy foods and beverages that contain caffeine were reviewed and patient was encouraged to avoid them. Diversion therapy such as watching of television and engaging patient

in a conversation was provided. Omeprazole 20mg and Suspension Nugal-O 15msl were administered to relieve the pain.

Goal was fully met on the 16th November 2022 at 2:30pm since patient verbalized the relief of epigastric pain and nurse observing patient having a relaxed facial expression.

Patient's nutritional status was restored

On 15th November, A nursing Diagnosis of Imbalance nutrition (less than body requirement) related to loss of appetite (anorexia) and abdominal pains. An objective was therefore set to restore patient's nutritional status within the period the 48 hours. Patient's food was served attractively to stimulate appetite. Patient was assisted with mouth care before and after meals. Patient was educated to avoid irritating foods such as spicy foods. Patient was encouraged to chew food slowly and allowing time to swallow to enhance easy digestion. Patient's food was served in bits with her favorite meal. All nauseating substances such as bed pan were removed from the environment to prevent loss of appetite. On 17th November, at 2:35pm, Goal was fully met as patient verbalized that she could eat 2/3 of food served on normal sized plate and nurse observing patient has gained weight than before.

Patient was relieved of constipation

On 15th November, 2022, a nursing diagnosis of impaired bowel elimination (constipation) related to lack of dietary bulk intake. An objective was set for patient to resume her normal elimination pattern within 48hours. Patient was reassured that the problem is manageable and the staff is ever ready to help in caring for her. Patient was served with light diet (such as porridge and soup). Patient was encouraged to engage in passive exercises to help relieve constipation. Patient was encouraged to drink a lot of water to help soften stools. Patient was educated to take high fiber diet. On 17th November, 2022 at 2:50pm, Goal was fully met as patient verbalized

that she was able to pass stools freely and nurse observing patient reporting the urged to defecate as appropriate.

Patient maintained normal body fluid volume

On the day of Admission (15/11/22) A nursing diagnosis of Risk for deficient fluid volume evidenced by episodes of vomiting. An objective was set that Patient will maintain normal body fluid volume within the period of 48hours and throughout hospitalization. In other to meet this set goal Patient was encouraged to drink at least 1500mls of water daily to replace lost fluid. An Intake and output chart was maintained to know the balance between fluid intake and fluid output. Signs and symptoms of dehydration such sunken eyes, oliguria and loss of skin turgor were assessed. All nauseating items such as bed pan were removed from the environment to prevent vomiting. Patient's weight was checked daily. Prescribed Antiemetic (Promethazine) was administered with therapeutic and side effects observed. On 17th November, 2022 at 3:30pm, Goal was fully met as patient maintained a normal skin turgor and had no signs of dehydration.

Patient and family gained adequate knowledge about the condition

On the 16th November 2022, a nursing Diagnosis of Deficient knowledge (patient and family) related to causes, Signs and symptoms, treatment and preventive measures as evidenced by inappropriate response to basic questions on the disease (peptic ulcer) was formulated. Objective was set to make patient gain adequate knowledge into the causes, signs and symptoms, treatment and preventive measures of peptic ulcer disease. On the 17th November 2022, evaluation was made and goal was fully met as patient/family gave accurate feedback on information given on peptic ulcer disease.

5.2 Termination of Care

Termination of care for the patient and family started on the day of admission till the third home visit. This was done to enable the patient and family accept that the care would not be there forever since the goal was to make miss H.N regain her health. On 9th December, 2022, home visited to patient and family was done as the third time. Miss H.N had no complains and had recovered fully during this visit as she was assessed. They were encouraged on the need to adhere to the education given to them during the period of hospitalization and also encouraged them to report to the hospital anytime they have a health-related problem. The importance of personal and environmental hygiene was again stressed. Taking nutritious diet, periodic medical check-up, stress reduction, compliance to the drug regimen and also renewal of the National Health Insurance Scheme (NHIS), when it expired were encouraged.

They were therefore introduced to miss F.M, a community health nurse who promised to continue the follow up visit and give any health information which would be needed by the patient and the family. I left the patient's house at 6:00pm

CHAPTER SIX

SUMMARY AND CONCLUSION

6.0 Summary and Conclusion

This is the final step in the patient/family care study, and requires the student to assess the therapeutic relationship with the patient as well as the nursing process.

According to Cambridge Dictionary Summary is a short description that gives the main facts or ideas about something.

6.1 Summary

A summary is a brief statement or account of something's main point. (Hornby, 2010).

Miss H.N is a 20years old lady who was admitted to the Female's Ward at Holy Family Hospital Techiman. She was diagnosed of peptic ulcer disease on the 15th of November, 2022 at 2:00pm. On admission, miss H.N complained of pain at the epigastrium, loss of appetite, constipation, vomiting and knowledge deficit on the condition (peptic ulcer). On admission her vital signs were checked and recorded. Five health problems were identified and appropriate nursing interventions were put in place to tackle each of the problems. The five health problems identified were Epigastric pain, episodes of vomiting, loss of appetite, constipation and knowledge deficit.

Laboratory investigations ordered were;

1. Stool for H. Pylori test
2. Blood film for malaria parasites
3. Blood Urea and creatinine
4. Full Blood Count (FBC) for: White blood cell count, Red blood cell count and Haemoglobin level estimation.

Patient was placed on the following medications

1. Suspension Nugal O 15mls tds x 5days
2. Intravenous Dextrose in Normal Saline 5% 2 liters x 24 hours
3. Intravenous Omeprazole 40mg stat then 40mg bd x 24 hours
4. Rangers Lactate 1litre x 24 hours
5. Intravenous Buscopan 40mg bdx 24hours
6. Intramuscular Promethazine 25mg stat
7. Capsule Omeprazole 20mg bd x7days
8. Intravenous Amoxiclav 1.2g tds x 24 hours
9. Amoxiclav, oral, 625mg bd x 7days
10. Intravenous metronidazole 500mg tds x 24 hours
11. Metronidazole, oral, 400mg tds x 7days
12. Intravenous Tramadol 200mg in 500mls of Normal Saline x 12 hours

A care plan was drawn with clear objectives and appropriate nursing interventions instituted to tackle each of the problems and they included reassuring the patient on her condition, encouraging patient to assume the prone position to alleviate pain, engaging patient in divisional therapy to draw her attention from pain. Peptic Ulcer Disease was clearly understood by the patient and family, as they were able to explain the causes, signs and symptoms, treatment and prevention of the disease. The patient was prepared towards discharge from the first day of admission.

Miss H.N recovered quickly without any complication and was scheduled for review. During the course of care the patient home was visited 3 times. Three home visits were made to ensure

continuity of patient's care. During the home visits, education on patient's condition and its management, personal and environmental hygiene was done. Adjustments were also done in their house environment. Care was terminated on the 9th December, 2022.

6.2 Conclusion

According to Weller (2019), the final part that brings something to a close is referred to as the conclusion.

This care study has assisted me in becoming knowledgeable about the disease condition peptic ulcer, as well as in caring for and understanding patient as individuals with diverse background, personalities and condition. It has also aided the patient and her family in receiving the necessary care. The study is significant because it is a type of research that aids in the identification of specific health problems in specific areas and the provision of necessary interventions

Despite the fact that writing a patient/family care study is time consuming. I believe that every student nurse should do so because it enriches their knowledge and practice. The Nursing the Midwifery Council of Ghana should maintain it in the nursing program.

APPENDIX

Table 10: Vital signs of Miss H.N throughout the period of hospitalization

Date	Time	Temperature (°C)	Pulse (bpm)	Respiration (cpm)	Blood Pressure (mmHg)
15/11/22	2:00pm	36.2	80	22	110/80
	6:00pm	35.4	100	25	110/90
	10:00pm	36.2	100	20	110/80
16/11/22	6:00am	36.0	100	25	110/90
	10:00am	35.6	108	25	110/80
	2:00pm	37.0	70	18	120/70
	6:00pm	36.2	80	19	110/90
	10:00pm	36.6	101	22	109/90
17/11/22	6:00am	36.8	105	24	120/90
	10:00am	36.2	90	24	110/80
	2:00pm	35.6	88	20	110/80
	6:00pm	36.7	92	22	120/90
	10:00pm	36.0	88	24	110/70
18/11/22	6:00am	36.0	84	21	110/90
	10:00am	35.9	88	22	110/80
	2:00pm	35.9	88	22	115/72
	6:00pm	36.0	95	23	120/80
	10:00pm	35.0	97	25	121/90
19/11/22	6:00am	35.9	90	24	110/70

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OTHERS

Patient' Folder Number; AO9-AAB7875, Holy Family Hospital, Techiman.

SIGNATORIES

THE STUDENT NURSE


NAME: ABORTAH FELICIA

SIGNATURE: 

DATE: 7th July, 2023

**NURSE IN-CHARGE OF FEMALE MEDICAL WARD, HOLY FAMILY HOSPITAL,
TECHIMAN**

NAME: MARTHA MANYADENI

SIGNATURE: 

DATE: 10/07/2023

**THE SUPERVISOR, HOLY FAMILY NURSING AND MIDWIFERY TRAINING
COLLEGE, BEREKUM**

NAME: MR. OBENG ERIC

SIGNATURE: 

DATE: 10/07/2023

**THE PRINCIPAL, HOLY FAMILY NURSING AND MIDWIFERY TRAINING
COLLEGE, BEREKUM**

NAME: MONICA NKRUMAH

SIGNATURE: 

DATE: 17th July, 2023

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