HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE, BEREKUM.

A PATIENT AND FAMILY CENTERED CARE STUDY ON

ACUTE APPENDICITIS

OWUSU JUSTICE ACHEAMPONG

4120210135

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

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PREFACE

Nursing care has broadened from care of the sick to care of the people both in sickness and in health and also extend to the patient's family and community at large in all aspects.

During the 19th and 20th centuries however, nursing developed as there were many wars, arousal of social consciousness and increased educational opportunities offered to women and the enormous role played by Florence Nightingale that cannot be over emphasized. The training of nurses in diploma program, licensing of nurses, specialization of hospitals and diagnosis, development of baccalaureate and advance degree programs and scientific and technological development as well as social changes marked this period. More than ever, today's nurses need to think critically, creatively, and compassionately to reach out to all.

An approach used in nursing today, the nursing process, is achieved through functional team nursing. The nursing process is a series of organized steps designed for nurses to provide excellent care; it is also a scientific method used by nurses to ensure the quality of patient care. This approach can be broken down into five separate steps namely; assessment, diagnosis, planning, implementation and evaluation.

Patient/Family care study is a detailed account of nursing care rendered to a patient and his or her family within a specific period of time. The interaction between the patient and his or her family, the community and the health team are involved in the planning and implementation of the care given to the patient to meet his or her physiological, spiritual, psychological and socio-economic needs.

The patient and family care study helps student nurse to identify patient and family problems so as to be able to formulate appropriate interventions. This enables the student nurse to look into the disease

condition to be able to put to use the theoretical knowledge and practical skills acquired to provide holistic nursing care including health education to the patient and family.

Finally, the patient and family care study is part of the final assessment of the student nurse by the Nursing and Midwifery Council of Ghana for the award of license to practice as a professional registered general nurse. To ensure confidentiality patient’s initials have been used instead of her name.

ACKNOWLEDGEMENT

To God be the glory for providing me with strength and knowledge for this project to materialize. My profound gratitude goes to Mr. T. R. and his family for granting me the consent to conduct this study on them and also giving me their immense cooperation and support.

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Again, my sincere gratitude goes to the Nursing Officer in charge of the Surgical Ward of Holy Family Hospital, Berekum, Mrs. Grace Yeboaa and the entire staff in the hospital for their support and encouragement throughout the period of nursing care to my patient in the ward.

Furthermore, I want to show my most gratefulness to my father, Mr. Owusu Antwi Patrick and my lovely mother, Ms. Georgina Ama Takyiwaa and her younger sister, Mrs. Beatrice Akosua Yeboaa for their psychological and financial support during the writing of this care study.

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Finally, I appreciate the efforts of the authors and publishers whose books served as references for the writing of this care study. God bless you all.

INTRODUCTION

Mr. T.R. was admitted to the ward on the 7th of December, 2022 at 5:30pm through the Emergency Unit of the Holy Family Hospital, Berekum in a wheelchair accompanied by four student nurses and a relative. Patient had high body temperature, pain at the right lower quadrant of the abdomen and vomiting was recorded. He was diagnosed of Acute Appendicitis. The patient and his mother were welcomed and I made it known to them my interest in taking him and his family for my care study which they accepted. Five health problems were identified during his stay in the hospital. Nursing Diagnosis were formulated and interventions put in place to resolve the health problems. Laboratory investigations requested were;

1. Full Blood Count.
2. Abdominal Scan.
3. Blood Urea Nitrogen/Creatinine Examination.
4. Blood for Grouping and cross matching.

Mr. T. R. was managed on the following medications;

1. IV Ciprofloxacin 400mg BD x 4 days
2. IV Metronidazole 500mg TDS X 4 days
3. IV paracetamol 1g TDS X 4 days
4. IV Dextrose 5% 2L X 24 hours for 3 days
5. IV Ringers Lactate 1L X 24 hours for 3 days

During the study, I visited his house three times, thus, on Saturday, 10th December, 2022, while Mr. T.R. was still on admission, on Thursday, 15th December, 2022, for follow up after discharge and the last visit on Friday, 30th December, 2022 for termination of care. I decided to use the patient for my care study because I wanted to have more knowledge on Acute Appendicitis

The report of the study is written in six chapters;

1. Chapter one deals with assessment of patient and family.
2. Chapter two presents the analysis of data collected on patient.
3. Chapter three emphases on planning for patient and family care.
4. Chapter four discusses the implementation of patient and family care.
5. Chapter five presents the evaluation of care rendered to patient and family.
6. Chapter six deals with the summary and conclusion.

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CHAPTER ONE

ASSESSMENT OF PATIENT/FAMILY

1.0 Introduction

Assessment is the critical analysis and valuation or judgment of the status or quality of a particular condition, situation or other subjects of appraisal (Weller, 2015). In the nursing process, assessment involves the gathering of information about the health status of the patient, analysis and synthesis of data and making a clinical nursing judgment (Weller, 2009). The information is collected through interviewing, observation and laboratory investigations to help in analysis and diagnosis of patient's condition. This helps to render the exact nursing care to the patient and family. All information was gathered from the patient and his relatives and existing medical records. This forms the basis of nursing care, since it aids the patient centered care needed, to identify the health problems the patient/family faces through establishment of good rapport and medical records. This part of the study entails patient's particulars, family medical history, family socio-economic history, patient's developmental history, patient's lifestyle and hobbies, patients past medical history, patient's present medical history and patient's concept about his condition.

1.1 Patient's Particulars

Patient's particulars refer to the biological data of a patient and also includes areas such as patient's name (initials), date of birth, sex, marital status, nationality, next of kin, address, occupation, hometown and others (Marilynn, 2017). This helps in ensuring a proper assessment is done on the patient and holistic nursing care is giving to the patient. Mr. T. R. is the patient for this care study. He is thirty – two years of age and born to Mrs. C. A. K. and Mr. S. K. A. on 15th June 1990 at Bonsu in the Western North Region of Ghana. He hails from Akrofuo, a village in the Berekum

East Municipality, in the Bono Region of Ghana. He is currently living with his spouse Mrs. A. E. a hairdresser and his two sons, master J. A. T and master T. K. T at Adom with house number AD 426 -Adom, Berekum. He is from a family of 13 including the parents with four siblings from his father's side and seven from his mother's side. From the siblings at the father's side are all males and from the mother's side consist of five females and two males. He is the fourth born on his father's side and the third born on the mother's side.

Mr. T. R. is a Christian who fellowship with Berekum Church of God located at Berekum main round - about on the first floor of Fidelity Bank storey building. He is a Mason. He weighs 60kg with a height of 175cm. He is dark in complexion with black hair. He is a Ghanaian who speaks Twi, Sefwi and the English language. He has no physical impairments or disabilities and has no known allergy. Patient is a registered member of the National Health Insurance Scheme which covers some of his medical expenses. Mr. T. R started his basic school at Omega preparatory school at Mamudu kurom – Sefwi, Western North of Ghana. His parents changed the school he was attending from Omega preparatory school to Shooting Stars at Bodi District – Sefwi, Western North of Ghana. When he was in class three, he said, the parents relocated to Berekum where he started school from class one again at Pentecost Preparatory school at Thursday market – Berekum. He said when he was in class 4, his parents changed him from the private school he was attending and enrolled him into a government school because of high school fees demanded by the said private school. He then attended St. Augustine Roman Catholic Primary and Junior High School which is located close to Holy Family Hospital, Berekum. He continued from class four (4) to J. H. S. two (2) and finally completed at All for Christ Preparatory Junior High School. He went to Tepa Senior High School in the Ashanti Region of Ghana. Unfortunately, patient could not continue his education after his Senior High Education because his parents could not afford to care

for him at the training or University level. According to my patient, he said, he will continue his education if he gets the financial support. Mr. T. R's next of kin is A. E., his wife whom he stays with at Adom, Berekum. According to him, he wanted to be a policeman but later changed his mind because, he said, from what he has experienced, the police rule with laws governing the country but do not rule according to what is right or tell the truth.

1.2 Family's Medical History

A family's medical history is a record of medical information about an individual and their biological family. Family history provides a ready view of problems or illnesses within the family and facilitates analysis of inheritance or familial patterns (Shiel, 2019).

There are no known genetic medical conditions in the family, such as asthma, diabetes mellitus, mental illness, or hypertension, according to Mr. T. R. and his mother Mrs. C. A. K. Additionally, they claimed that there are no chronic illnesses in the family, such as leprosy and epilepsy and no known inherited condition, such as high blood pressure, diabetes, asthma, sickle cell anemia, or any mental illness exist in the household. The family members do, however, occasionally suffer from minor diseases like headaches and the usual cold, which they treat with over-the-counter pharmaceuticals and traditional medicines. If symptoms persist, they consult doctors for treatment on an outpatient basis. I informed them about the risks associated with these treatments, which can increase their risk of experiencing undesirable side effects from using such drugs more frequently. These risks might range from minor, like a slight stomach upset, to more serious including an elevated risk of bleeding or liver damage. According to Mr. T. R., some of their immediate and extended family members who have passed away all passed away naturally in their old age. Interactions with the patient indicated that he had previously sought medical attention for acute appendicitis at Happy Hospital, a medical facility in Berekum and the relatives around during the

interaction made it known to me that none of the family members aside the patient, have ever been hospitalized and that neither the patient nor any other family members have any known allergies.

1.3 Family's Socio – Economic History.

Socio-economic history is a brief record about patient's family occupation and source of income. It captures sources of support, coping styles, strengths, and fears or any measure which attempts to classify individuals, families, or households in terms of indicators such as occupation, income and education (Scott & Marshall, 2015). During my interaction with the patient, his wife and his mother revealed that, they have no taboos in the family and even if the family has, they are yet to know. According to Mr. T. R., he said he is the breadwinner for his nuclear family. He also said, he depends on his mason work for the provision of family's basic needs such as food, clothing and shelter and also his wife supports the family as well. Mr. T. R. clearly stated that, the family is a peaceful family and they usually meet on certain occasions like funerals, naming and marriage ceremonies. Mr. T. R. and family are registered members of National Health Insurance Scheme which covers some of their medical expenses and his family members are all Christians and therefore distance themselves from activities which are not accepted by the Christian community such as drinking of alcohol, smoking and stealing. He also made it known to me that in as much as they are Christians; they don't partake in some Christian activities such Easter, Christmas, Ascension Day etc. because they believe that these activities have no biblical foundation. He also said even though they believe in God, they also believe in taboos, myths and respect people from other religious backgrounds.

1.4 Patient's Developmental History

Development refers to the process of growth and differentiation which involves cognitive, psychosexual and psychosocial processes (Taylor, 2019). Maturation is the process of developing (Taylor, 2019). Growth is the progressive development of a living thing, especially the process by which the body reaches its complete physical development (Taylor, 2019).

According to Mr. T. R.'s mother Mrs. C. A. K., she delivered her son through a spontaneous vaginal delivery without any complications during pregnancy, labor and delivery. Congenital abnormalities such as cleft lip and palate, congenital heart defect, hydrocephalous were absent when the patient was born. According to Mr. T. R., his mother told him that he was exclusively breastfed for 6 months and was immunized against the vaccine preventable diseases such as poliomyelitis, whooping cough, diphtheria, measles, tetanus and tuberculosis. His right deltoid muscle was checked to confirm for scar indicating Bacilli Calmet Guerin (BCG) vaccination. According to Mr. T. R.'s mother, at the fourth month after delivery, the son could sit with support. At fifth to sixth months, he began sitting without support, crawling at the eighth month, he started walking at the tenth to eleventh months and could eat porridge prepared at home. He was weaned off breastfeeding at age two. He could talk at two years and could play with other children. Mr. T.R. did not have any serious illness as a young child and he also confirmed that, during the time of teething, crawling, sitting up, and walking were at the correct times. Mr. T. R. grew up to be a right-handed person.

Erikson's theory of psychosocial development describes the human life cycle as a series of eight egos developmental stage from birth to death. Each stage is characterized by a distinct conflict, or crisis, relating to the person's physiologic maturation and to what society expects of a person at that age. According to Mr. T.R., he started developing signs of adolescent such as growing of pubic

hairs, deepening of voice, broadening of chest at the age of 15. He also said that, he had his first sexual intercourse at the age of 22. He has two kids now with his wife though they have not done the church wedding.

1.5 Patient's Lifestyle and Hobbies

Lifestyle is defined as the pattern of daily living that an individual develops (Taylor, 2019). Mr. T. R. mostly wake up between 4:30am to 5: 00am on weekdays and says a prayer. He brushes his teeth with toothbrush and a toothpaste. He irons his first son's school uniform since the son is schooling. After that, he baths and mostly goes to work at 7am. He normally takes 'tom brown' as breakfast, 'ampesi' and beans stew or banku as lunch and most at times fufu as supper. His favorite food is 'ampesi' (plantain) and beans stew and also enjoy sports in general but his favorite is football. On weekends, he normally wakes up at 6am and goes to the farm or continue his mason work on Saturdays. On Sundays, he goes to church and also rest at home after church. According to Mr. T. R., he uses his leisure time to watch football either on television or goes to a nearby football pitch and sometimes involves himself in playing.

1.6 Patient's Past Medical History

Past medical history is a narrative or record of past events and circumstances that are or may be relevant to a patient's current state of health (Merriam Webster, 2019). According to Mr. T. R. and family, he never had any congenital disease. Mr. T. R. revealed that he never experienced any childhood ailments such as poliomyelitis, measles and tetanus but occasionally suffers from minor illness like headaches, fever and general body pains which subsides after taking over- the- counter drugs and education was given to him on the adverse effects of frequent use of those drugs. He said he has never been involved in any car accident, had surgery or congenital deformity since

birth and hence has no physical disability due to any illness. He said, on Wednesday, 30th November, 2022, he was rushed from Sunyani where he works to Happy Hospital in Berekum in the Bono Region on an account of having uncontrollable pain at the lower right quadrant of the abdomen. He was treated and the pain subsided. He also revealed that he has no known allergies. He is a registered member of the National Health Insurance Scheme (NHIS).

1.7 Patient's Present Medical History

Present medical history according to the medical dictionary (2015) is a chronologic description of the development of the patient's present illness, from the first sign and/or symptom or from the previous encounter to the present which includes the location, quality, severity, duration, timing, and content, modifying factors and associated signs and symptoms.

Mr. T. R. was in his usual state of health until Wednesday, December 7, 2022 when he was experiencing painful urination and a sudden pain at the right lower quadrant of the abdomen. He said he didn't want to cause any complications so he didn't take in any medication. On the said date, he was then brought to the Emergency Unit of Holy Family Hospital, Berekum for medical attention accompanied by his wife, his mother and his younger sister. On examination, he was weak and febrile. Upon investigations and assessments, he was diagnosed of having Acute Appendicitis by Dr. M. M. M and was asked to be trans-out to surgical ward and to be admitted for further treatment.

1.8 Admission of Patient

On December 7, 2022 at 5:30 pm, Mr. T. R. was admitted to the surgical ward through the Emergency Unit at the Holy Family Hospital, Berekum in a wheelchair accompanied by four student nurses and a relative. Patient was fully conscious and well oriented to time, place and

person. I was then asked to carry out his admission. I took over Mr. T. R. from the accompanying nurse. Mr. T. R. complained of pain at the right lower quadrant of the abdomen, on observation, he was restless, upon physical examination, patient has positive Rovsings sign (referred pain) and high body temperature. The folder (LHIMS) was cross-checked to confirm the information on the patient which includes his name, age, residential address, next of kin and religion. A quick assessment of his general appearance was made, intravenous line was secured, and he and his relatives were then welcomed and immediately admitted and made comfortable in an already made admission bed.

His vital signs were checked and recorded as;

1. Temperature - 38.7 degrees Celsius
2. Pulse - 98 beats per minute
3. Respiration - 21 cycles per minute
4. Blood Pressure - 144/80 mmillimetre mercury
5. Oxygen saturation (SPO2) - 96%

Patient temperature recorded 38.7 degrees Celsius and patient was very warm to touch, his heavy clothes were removed and less heavy one was put on, nearby windows were opened, he was tepid sponged and vital signs were monitored every 30 minutes after each tepid sponging. Patient temperature reduced to 36.9^0C. The site of appendiceal mass was marked to monitor for the size of the appendiceal mass. It was explained to him that either surgery will be done if the appendiceal mass increases or he will be managed medically till the appendiceal mass resolves. He became anxious when he was admitted at the ward. He was reassured of the competencies of the theater

team that he will be operated on safely if the surgery will take place. Mr. T. R. was put on nil per os and intravenous medications were administered. Hospital policies regarding visiting periods, payment of bills and the time vital signs will be checked, when there will be ward rounds and time for medications were explained to him. Patient and his relative were oriented to the ward and its surroundings and they were welcomed. He confirmed of having a National Health Insurance card, therefore part of the bills will be settled by it. He was introduced to the staff present and was reassured of a competent nursing care that everything about Mr. T. R. will be done with much care to ensure delivery of quality health care.

Investigations requested were as follows:

1. Full Blood Count.
2. Abdominal Scan
3. Blood Urea Nitrogen/Creatinine Examination
4. Blood for Grouping and cross matching

Treatments prescribed were;

1. IV Ciprofloxacin 400mg BD x 4 days
2. IV Metronidazole 500mg TDS X 4 days
3. IV paracetamol 1g TDS X 4 days
4. IV Dextrose 5% 2L X 24 hours for 3 days
5. IV Ringers Lactate 1L X 24 hours for 3 days

He was on nil per os for 24 hours to monitor for the size of the appendiceal mass and also to prevent any further complications when he takes in anything by mouth. The intravenous medications were obtained from the pharmacy and the stat doses were administered according to the prescription. Planning for patient discharge began right from the day of admission. His relative

was assisted to arrange his personal items into the bed side locker. When the patient was stable, I went to engage him and the relative in a therapeutic conversation where I sought a permission from them to use Mr. T. R and his family for patient/family care study. I explained to them in simple language what it will entail and promised to make information gathered confidential. I made patient and family understand that, other health care members will play their role in the care of Mr. T. R. but I will mostly have an encounter with them and that in my absence other colleagues will continue the care. Patient/family care study is to enable me render to him individualized comprehensive nursing care until discharged. I further told them that I am a final year student from Holy Family Nursing and Midwifery Training College-Berekum, writing a family/patient care study and if given their consent, I would care for Mr. T. R. until full recovery is attained. I informed them that it was a requirement by the Nursing and Midwifery Council that had to fulfill as a partial fulfillment for award of license to practice as professional Registered General Nurse in the country. I informed them about home visiting to see how he is doing. He was very happy and agreed to my request and promised to co-operate fully in caring for him. I decided to use the patient for my care study because I wanted to have more knowledge on Acute Appendicitis. Discharge planning was initiated by educating them on the causes, signs and symptoms and the management of acute appendicitis.

1.9 Patient/Family Concept of Illness

According to Merriam-Webster's Learners Dictionary (2016) patient's concept of illness can be defined as an abstract or generic idea generalized from one's illness or condition. Mr. T. R. and family has less knowledge about his condition, thus acute appendicitis and they did not attribute the illness to any spiritual cause because they believed that as we are humans, sickness is bound to happen to anyone. As to what has contributed to the present illness, they have less knowledge

about it. They expressed confidence of getting well soon because according to them, they believed that with God's healing through good nursing and medical treatment he would have a complete recovery and join his family back at home.

1.10 Literature Review on the Disease Condition (Appendicitis)

This section deals with documented information about the condition Mr. T. R. was diagnosed with, that is Acute Appendicitis. Literature review of a condition gives a detailed insight into the condition. It talks about the established and laid down facts about the disease condition, which aids in the medical and nursing diagnoses and the appropriate management for that particular disease. It also entails the standard with which the patient's clinical manifestations, diagnostic investigations, treatment and others are compared.

Anatomy of Appendix

The appendix is a small, vermiform (i.e., worm-like) appendage about 8 to 10 cm (3 to 4 inches) long that is attached to the cecum just below the ileocecal valve (Craig, 2015; NIDDK, 2014).

According to Cirujano, (2019), the vermiform appendix is a tubular structure located on the posteromedial wall of the cecum, 1.7 cm from the ileocecal valve, where the taenias of the colon converge on the cecum. Its average length is 91.2 and 80.3 mm in men and women, respectively. The appendix is a true diverticulum, since its wall is made up of mucosa, submucosa, longitudinal and circular muscle and serosa. Its anatomical relationships are the iliopsoas muscle and the lumbar plexus posteriorly, and the abdominal wall anteriorly. The irrigation of the cecal appendix comes from the appendicular artery, a terminal branch of the ileocolic artery, which crosses the length of the mesoappendix to end at the tip of the organ. The mesoappendix is a structure of variable size in relation to the appendix, which entails variability in its positions. Therefore, the tip of the appendix can migrate to different locations: retrocecal, subcecal, preileal, postileal, and pelvic.

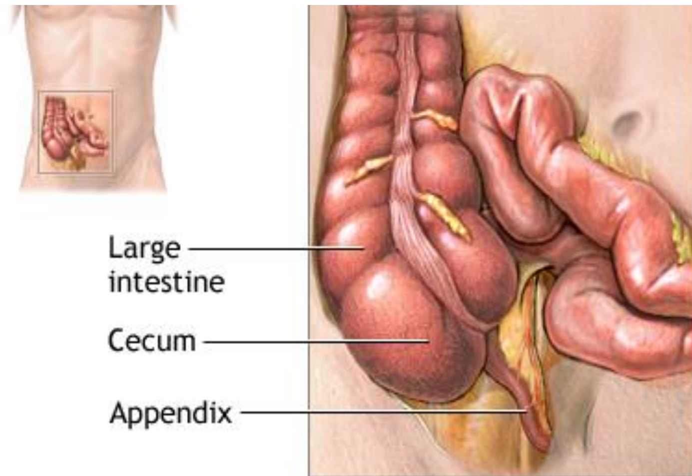

Figure 1: The image of the appendix

Definition

According to Williams & Hopper (2015), appendicitis is the inflammation of the appendix, the small, finger - like appendage attached to the cecum of the large intestine.

The appendix is a vestigial organ which means it has no known function. The appendix fills with byproducts of digestion and empties regularly into the cecum. Because it empties inefficiently and its lumen is small, the appendix is prone to obstruction and particularly vulnerable to infection. (Hinkle & Cheever, 2018).

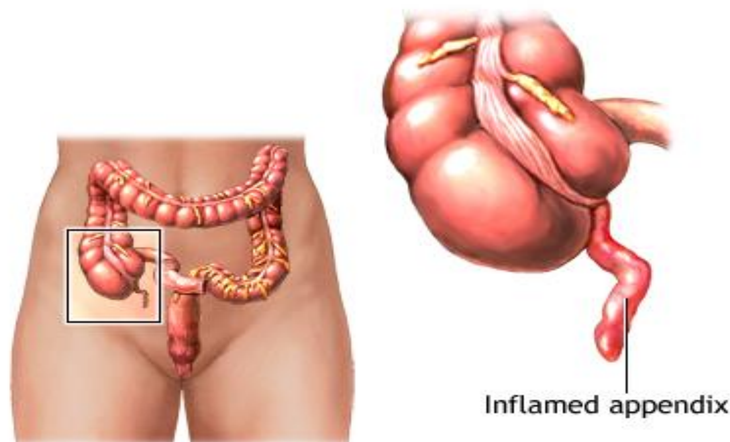

Figure 2: Image of an inflamed appendix

Incidence

Appendicitis, the most common reason for acute emergency abdominal surgery in the world. Although it can occur at any age, it typically occurs between the ages of 10 to 30. Its incidence is slightly higher among males and there is a familial predisposition (Hinkle & Cheever, 2018).

Causes

Hopkins (2023), outlined the causes of appendicitis which include obstruction of the lumen by;

1. Faecalith (hard mass of stool)
2. Tumor
3. Foreign body in the appendix
4. Fibrous condition in the bowel wall
5. External occlusion of the bowel by adhesion
6. Viral infections or worms

Pathophysiology

The appendix becomes inflamed and edematous as a result of becoming kinked or occluded by a fecalith (i.e., hardened mass of stool), lymphoid hyperplasia (secondary to inflammation or infection), or rarely, foreign bodies (e.g., fruit seeds) or tumors. The inflammatory process increases intraluminal pressure, causing edema and obstruction of the orifice. Once obstructed, the appendix becomes ischemic, bacterial overgrowth occurs, and eventually gangrene or perforation occurs (Craig, 2015; Saccomano & Ferrara, 2013).

Types of Appendicitis

There are two main types of appendicitis. They include;

1. Acute Appendicitis
2. Chronic Appendicitis

Acute Appendicitis

Acute appendicitis is the inflammation of the appendix which has a sudden onset and usually characterized by severe pain and reddening of the lower abdominal wall. This is the most severe and dangerous type. The lumen becomes obstructed leading to a severe ischemia, gangrene and perforation. Later on, perforation occurs in nearly 25 percent of patients who report 24hours or more after onset of disease. Localization or spread of the infection depends on whether adjacent organs, especially the greater omentum, loops of ileum, wall off the inflamed organ, before perforation occurs.

Generalized peritonitis may also occur by spread of infection through the walls without gangrene or perforation.

Chronic Appendicitis

This is where the mucosa and sub mucosa are inflamed and oedematous, the appendix may be swollen and the serosal reddened with increased vascularity. If untreated, resolution occurs but with formation of fibrous adhesions either within the lumen or on the obstruction due to factors mentioned above obstruct the lumen and cause more severe attack later.

Clinical Manifestation

According to Williams & Hopper (2015), the signs and symptoms of Acute Appendicitis are;

1. Abdominal pain, the most frequent symptom that occurs in patients. Local tenderness may elicit at McBurney point when pressure is applied.
2. Anorexia due to the abrupt onset of illness.
3. Nausea and Vomiting.
4. Constipation/diarrhea.
5. Fever due to infection/inflammation process.
6. Rebound tenderness (intensification of pain when pressure is released)
7. Dysuria (Painful urination).
8. Positive Rovsings sign (palpation in the left iliac fossa elicits referred pain in the right fossa).

Diagnostic Measures

According to Hinkle & Cheever (2018), the diagnostic measures to rule out appendicitis include;

1. Full blood count (FBC) - it is carried out to estimate the constituents of blood (RBC, WBC, HB etc.) and their deviations from the normal ranges.
2. Plain abdominal x-ray examination to reveal presence of a faecalith, increased soft tissue density in the right lower quadrant.

3. Abdominal Ultrasonography will show thickening of appendicular wall and abscess
4. Blood urea electrolyte and creatinine (supportive test to check renal function before surgery).
5. Local and rebound tenderness
6. Positive Rovsing's sign
7. Computed Tomography (CT) Scan to differentiate between perforated and non-perforated acute appendicitis or an increase in appendicular diameter greater than 6 mm and/or appendicular wall thickness greater than two millimeters
8. Magnetic Resonance Imaging; It is considered the radiographic study of choice in pregnant women with clinical suspicion of acute appendicitis.

Complications

According to Waugh & Grant (2018), the major complication of appendicitis is perforation of the appendix, which can lead to;

1. **Peritonitis**; it occurs when the appendix raptures and microbes spread through the wall of the appendix and infect the peritoneum.
2. **Abscess formation**, the most common are; the sub phrenic abscess (between the liver and diaphragm, from which infection may spread upwards to the pleura, pericardium and mediasternal structures) and pelvic abscess (from which infection may spread to adjacent structures).
3. **Adhesion**; when healing takes place, bands of fibrous scar tissue (adhesions) form and later shrinkage may cause stricture or obstruction of the bowel.

4. **Gangrene**; the rising pressure inside the appendix occludes first the veins, then the arteries and ischemia develop, followed by gangrene and rapture.

Treatment

Immediate surgery is typically indicated if appendicitis is diagnosed (Craig, 2015; Saccomano & Ferrara, 2013). The current treatment for acute appendicitis ranges from surgical modalities to conservative management.

Conservative Treatment

According to Hinkle & Cheever (2018), conservative nonsurgical treatment is instituted for uncomplicated appendicitis (acute appendicitis without perforation data) or it is practiced if for some reasons appendicitis could not be diagnosed early or the patient’s condition is not suitable for the operation or until surgery is performed.

This treatment consists of given;

1. Antibiotics such as Ciprofloxacin and Metronidazole to treat infection
2. Crystalloid infusions like Dextrose, Normal Saline and Ringers Lactate to maintain fluid and electrolyte balance and prevent dehydration.
3. Intake and output are also monitored to prevent dehydration.
4. Analgesics such as Paracetamol, Morphine etc. can be administered after the diagnosis is made to reduce pain.
5. Antipyretics such as paracetamol

Surgical Intervention

Appendectomy (that is, surgical removal of the appendix) is performed as soon as possible to decrease the risk of perforation. It is typically performed under a general anesthesia with a low abdominal incision (laparotomy) or by laparoscopy. It is mostly done in complicated appendicitis (perforated acute appendicitis with and without localized abscess and/or purulent peritonitis). Both laparotomy and laparoscopy are safe and effective in the treatment of appendicitis with or without perforation. However, recovery after laparoscopic surgery is genrally quicker (Andersson, 2014; Bozkurt, Unsal, Kapan, 2015).

Nursing Management

The nursing goals of managing a patient with appendicitis include the following;

1. To relieve pain
2. To prevent fluid volume deficit
3. To reduce anxiety
4. To eliminate infection due to the potential or actual disruption of the gastro-intestinal tract.
5. To maintain skin integrity
6. To attain optimal nutrition

The nursing managements of a patient with appendicitis are;

1. The nurse should administer prescribed IV infusions such as Ringers Lactate, Dextrose, Normal Saline etc. to replace fluid loss and to promote adequate renal function and monitor intake and output.

2. The nurse should serve prescribed antibiotics to prevent infection.
3. Do not administer enema because it can lead to perforation.
4. Serve prescribed opioid analgesics (usually morphine sulfate is prescribed).
5. The nurse should assist the patient to perform daily activities

Pre – Operative Care for Patient

Preoperative care begins immediately the surgeon makes a diagnosis and decides that an operation is necessary for the patient. The overall goal of nursing care during the preoperative phase is to identify the problems that may increase the operative risk and predispose patient to postoperative problems. The preoperative care or preparations are;

1. Psychological preparation
2. Physical preparation
3. Physiological preparation

Psychological Preparation for Patient

Surgical interventions no matter what pose some degree of stress and anxiety on patients. During surgery, patient barrier to foreign invaders becomes broken and many internal structures are distorted. In addition to this, patients are exposed to varying degree of embarrassment and strenuous procedures which put them into great fear (example; fear of pain and discomfort, fear of unknown outcome, fear of death, fear of alteration of body image etc.) and consequently psychological instability which is a threat to surgical outcome. Below are some of the psychological preparations.

1. Establish and maintain a relationship that allows the patient to verbalize all fears and anxiety.

2. Use active listening and observation skills to identify and validate verbal cues (example; Where will my family be? What kind of scare will I have? How long will I be in the operation room? etc.) and non-verbal cues (example; increased heart rate, insomnia, etc.) indicating anxiety and fear of the patient.

3. Discuss with the patient and give full information about the surgery, such as; type of surgery, the benefits and potential risks, expected duration of hospitalization etc. this helps to reinforce the surgeon's explanations to the patient about the nature of his condition and the purpose of the treatment options.

4. Allow the patient to ask questions and clear all his doubt.

5. Tactfully answer all questions asked by the patient in the language he can understand in other to increase his confidence to undergo surgery.

6. Introduce patient to successfully recovered patient who had similar surgery to allay patient's anxiety and fear.

7. Explain to patient what happens during anesthesia.

8. Explain to patient how to get rid of post-operative pain by the use of post-operative analgesics following recovery from anesthesia.

9. Arrange for surgeon to explain the procedure to the patient.

10. The nurse should employ diversional therapy such as allowing patient watch favorite Television show or engage patient in a conversation of his favorite game in allaying anxiety.
11. Assist patient to meet his spiritual needs by arranging for his spiritual leader (Pastor, Imam, Traditionalist, etc.) per request of patient.

Physiological Preparation for Patient

This is done to know how the body is functioning; it includes laboratory investigations, nutrition and elimination. Laboratory investigations such as urinalyses, blood for grouping and cross matching, full blood count and coagulation time are done. Assess patient's nutritional status to rule out weight loss or weight gain. The physiological preparations are as follows;

1. Maintain nil per os (NPO) prior to surgery. The patient is given nothing by mouth at least 6-8 hours before surgery to prevent aspiration of gastric content during surgery.
2. Constant and proper monitoring of vital signs is very necessary to serve as a baseline data and notify surgeon of any alterations in patient's condition.
3. Carry out laboratory investigations such as; Complete Blood Count (CBC), creatinine, bleeding and clotting time, blood chemistry for urea and nitrogen, blood sugar, grouping and cross matching.
4. Ask patient appropriate questions to obtain past and present medical history in order to exclude bleeding tendencies, chronic conditions such as asthma and hypertension, drug reaction, previous operations, etc.

5. Collect other baseline data - Electrocardiogram (ECG), Computed Tomography (CT) Scan results, X-ray and other specific investigations relevant to appendicitis.

6. Continuously administer and monitor prescribed IV fluids such as Ringers Lactate to prevent dehydration or fluid overload.

7. If desirable, patient should be weighed to provide a baseline for reference. The anesthesiologist should be invited to pre-assess the patient.

8. Monitor IV infusions and maintain intake and output chart if patient is on IV infusions.

9. Encourage the patient to empty the bladder and bowel before surgery to minimize risk of injury and complications during and after surgery or pass urethral catheter.

Physical Preparation

The goal is to reduce the risk of post-operative complications. Physical preparation of the patient includes skin preparation, elimination, nutrition and fluids, rest and sleep.

Personal Hygiene Pre – Operative

This is to help patient remove excess dirt and oil. This also gives patient sense of relaxation because it may take days before patient take a 'real bath' again post-operatively. The patient should be assisted and encourage to;

1. Bath or shower.

2. Thoroughly wash the hair.

3. Remove nail polish or make-up to allow the theater team observes carefully for cyanosis because it (nail polish or make-up) hides true coloration.
4. Perform thorough mouth care to make patient comfortable.
5. Change bed linens and personal clothing into a clean hospital gown and sheet.

Prostheses

1. Ask patient to remove his dentures or contact lenses if any.
2. Place all items in a container labeled with the patient's name and folder number.
3. All jewelries should be removed from the patient and be given to a relative on approval by the patient.

Identification Band

The patient should have proper identification band bearing his name, diagnosis, surgery, folder number, etc. on the wrist.

Surgical Site Preparation

The site (pubic area, the abdomen, the upper thoracic and the upper third of the thigh) should be prepared based on the hospital protocol. The following are the steps to be followed;

1. Wash the site with soap.
2. Shave hair.
3. Wash again with soap.

4. Clean with an antiseptic solution such as savlon.

5. Drape with sterile towel.

6. The patient is then gowned and capped

Allergies

The nurse should note all allergies according to institutional policy (on the front sheet of patient's record or on an allergy bracelet).

Special Others

The nurse should ensure that any special procedure ordered is carried out (example; passing of nasogastric tube, inserting of catheter, etc.)

Post – Operative Management for Patient

This period begins with the admission of the patient to the Post – Anesthetic Care Unit (PACU) and terminates when discharged.

Immediate Post – Operative Care for Patient

The nurse should;

1. Critically keep close watch on the dressing for bleeding and apply more dressing and pressure bandage or report to the surgical team if there is the need.

2. Constantly monitor patient's vital signs until he recovers.

3. Assist patient to wash his face, mouth and hands as soon as he recovers from anesthesia.

4. Assist patient to change from theater gown and bed if necessary.
5. Support patient into a comfortable position.
6. Alleviate pain with prescribed postoperative analgesics.
7. Remind the patient of dietary change after operation and against taking food or fluid per mouth.

24 Hours Post – Operative Care for Patient

the nurse should;

1. Receive patient into an operative bed in a recovery position with the head turned to the side to facilitate drainage of fluid and prevent aspiration.
2. Raise well-padded side rails to protect patient from fall.
3. Assess patient level of consciousness. Example; Call patient by name.
4. Ensure airway patency by suctioning of secretions if necessary.
5. Place patient in fowlers position when conscious.
6. Monitor vital signs, record and report any abnormalities.
7. Maintain nil per os (NPO).
8. Administer any post-operative medications and monitor for any side effects.
9. Administer and ensure the flow of IV fluids.
10. Ensure good personal hygiene (bathing and oral hygiene)

Observation

The nurse is to;

1. Check the incision site for bleeding, discharge etc.
2. Observe for signs and symptoms of internal bleeding such as restlessness, falling blood pressure, cyanosis and thirst.
3. Monitor and record vital signs every 15 minutes for first two hours, every 30 minutes for the next one hour and then hourly until patient condition stabilizes. Remember to report any deviations.
4. Monitor IV fluids and maintain intake and output chart.
5. Assess patient level of consciousness. Example; Call patient by name.
6. Monitor any specific observation as instructed by the surgeon.

Personal Hygiene Post – Operative

The nurse is to;

1. Assist the patient to bath if there is the need to or give bed bath taking care to wash the perineum.
2. Treat pressure areas such as the occiput, scapula, and sacrum to prevent pressure sores.
3. Encourage patient rinse his mouth after every meal to remove food debris from the mouth.
4. Bed linens should be changed frequently and when dirty or soiled.

5. Educate the patient to wash his hands with soap and running water before and after eating and also after visiting the toilet.

6. Ensure patient avoid unnecessary touching of the incisional site.

Nutrition

Malnutrition has serious consequences on patient during and after surgery. Good nutrition promotes healing and recovery hence the nutritional status of patients should be improved before surgery.

1. Never give anything by mouth until it is directed by the surgeon.

2. Patient should be educated on the importance of good nutrition to his health and the operation.

3. Allow patient to start with sips of water and gradually introduce to fluid diet such as plain tea, followed by nourishing diet such as porridge and light soup and eventually a full diet such as fufu.

4. Plan patient's diet with him taking into consideration the likes and dislikes.

5. Serve food attractive and encourage patient to eat.

6. Continue all hydration preparation through careful administration of intravenous fluids in order to correct any dehydration.

7. Encourage patient to limit intake of too much sugar and fatty foods

Elimination

1. Patient should be able to empty the bladder within 6 to 8 hours after the surgery to indicate functioning of the kidney.

2. Document the amount, color and odor of the first urine passed on the intake and output chart.

3. Find out from the patient whether he has passed flatus, which will indicate return of bowel sounds or peristaltic movement.

4. When patient resumes feeding, encourage him to take food with enough roughage to prevent constipation.

Wound Care

1. Immediately observe wound for signs of bleeding and infection (any offensive odour, discharge, pus).

2. Aseptically reinforce dressing if there is bleeding and inform surgical team.

3. Use aseptic technique to change dressing as directed by the surgeon.

4. Dress the wound from inside out to prevent wound contamination.

5. Educate the patient to keep the incisional site dry and avoid touching to prevent infection.

6. Follow surgeon directives as to when alternate stitches are to be removed.

Rest and Sleep

The surgical patient needs a peaceful rest the night before and after the operation and it is the responsibility of the nurse to ensure this by;

1. A comfortable bed free from creases and cramps with soft pillow to ensure good sleep.
2. A well-ventilated and quiet environment.
3. Restriction of visitors to save patient from any disturbances and cross infection.
4. Sedatives maybe served as prescribed.

Exercise

1. Breathing and coughing exercise is started immediately after when patient is fully conscious to ensure circulation.
2. Patient is encouraged to do passive exercises such as sitting up in bed and also early ambulation to prevent circulatory stasis.

Patient Education

1. Patient should be educated on appendicitis development, causes, signs and symptoms, treatment, prevention and complication.
2. Patient should be encouraged to eat high fibre diet to promote regular bowel movement.
3. Patient should be encouraged to take in adequate fluids and to increase the number of raw vegetables, fruits and whole grain cereals in diet.

4. The nurse should emphasize on the need for good personal hygiene to the patient.
5. The nurse should assist in performing active and passive exercises of the limbs to prevent postoperative deep vein thrombosis.
6. The patient should be educated on the importance of early ambulation.
7. Patient with Acute Appendicitis should be advised to complete the prescribed dosages even if the signs and symptoms of the condition subside in patient without surgery.
8. Patient should be educated on the dosage, side effects, adverse effects and precautions of the prescribed drugs given to him.
9. Patient should be encouraged to become a resource person for others undergoing similar condition.
10. The signs and symptoms such as high temperature, nausea and vomiting, pain at the right lower quadrant should be made known to people to enable them seek for early treatment.
11. Patient should be educated on the need to stop eating spicy and fatty food since it can irritate the mucosa.
12. Patient is educated on the need not to engage in smoking and drinking alcohol.
13. Educate the patient on follow-up care or review schedule.

1.11 Validation of Data

Data validation is a method of checking for the accuracy and quality of your data. It also includes the process of ensuring that data entered fall within the accepted boundaries (Alley, 2019).

All the data collected from patient was cross checked with other family members for confirmation. The patient's medical history was confirmed by some of the signs and symptoms he manifested. The clinical features presented and diagnostic investigations conducted on him confirmed that he was suffering from Acute Appendicitis. When the information collected from him were compared with what the family members verbalized, the data is found to be accurate and relevant, clinical features exhibited by patient are similar to those said by the relatives. This data is therefore valid for the study and free from errors or biases.

CHAPTER TWO

DATA ANALYSIS

2.0 Introduction

Analysis of data is the second phase of the nursing process, which involves careful comparison of the patient's problems or the information gathered from patient and relatives with standards and then putting these problems in order of priorities to plan for the care of the patient and family (Delaune & Ladner, 2018).

This section covers the under listed areas;

1. Comparison of data with standards
2. Patient and family's strength
3. Patient's health problems and
4. Nursing diagnoses

2.1 Comparison of Data with Standards

This is the process of comparing the information collected from patient/family and the care given with standards set in the textbooks. This includes diagnostic investigations, causes, signs and symptoms, prevention, treatments and complications found in the literature review.

A. Diagnostic Investigation/Test

Diagnosis is the determination of the nature of a disease (Taylor, 2019). Investigation refers to procedures performed to establish a diagnosis, to monitor a person's health, disease or the effectiveness of treatment (Taylor, 2019).

The following are list of investigations which were carried out on Mr. T.R. during his period of hospitalization;

Table 1: Comparison of Test Done on Mr. T. R. to Literature

Diagnostic Test Outlined in Literature Review	**Test Carried out on patient**
1. Full Blood Count	1. Blood sample was taken for full blood count.
2. Plain abdominal X-ray	2. Abdominal X-ray was not carried out on my patient.
3. Abdominal Ultrasonography	3. Abdominal ultrasound was carried out on my patient.
4. Blood urea electrolyte and creatinine	4. Blood urea electrolyte and creatinine was carried out on my patient.
5. Local and rebound tenderness	5. Palpation was done to confirm local and rebound tenderness
6. Positive Rovsings sign	6. Palpation was done to confirm for positive Rovsing's sign.
7. Computed Tomography	7. Computed Tomography was not carried out my patient.
8. Magnetic Resonance	8. Magnetic Resonance was not carried out on my patient.
9. Not Present in literature review	9. Blood for grouping and cross-matching was done.

All the above tests requested on Mr. T. R. were found in the literature review with the exception of blood for grouping and cross-matching. The blood for grouping and cross-matching was ordered by the physician to know the blood type of patient in other to enable effective blood transfusion if the need arises.

Table 2: Results of Diagnostic Investigations carried out on Mr. T. R.

Date	Specimen	Investigation	Results	Normal Values	Interpretation	Remarks/ Treatment
07/12/2022	Blood	Grouping and cross matching	Blood group A positive	Blood group may fall under these values; A (+ or -), AB (+ or -), B (+ or -) and O (+ or -)	Client belongs to blood group A with Rhesus Positive, (A+).	No treatment was given.
07/12/2022	None	Abdominal Ultrasound	Appendiceal abscess.	An image of the vermiform appendix of about 8cm to 10cm long.	Appendiceal abscess indicating inflammation of the vermiform appendix.	Patient was given a conservative care
07/12/2022	Blood	Sodium	142.5mmol/L	135 - 145 mmol/L	Electrolyte urea and creatinine levels are within normal range indicating patient has normal kidney function.	No treatment was given.
		Chloride	105.0mg/dL	98 - 108 mg/dL		
		Calcium	1.3mmol/L	1.1 – 1.4 mmol/L		
		Potassium	5.12mmol/L	3.5-5.5mmol/L		
		Urea	6.7mmol/L	2 – 7 mmol/L		
		Creatinine	80.67mmol/L	60.0 – 120mmol/L		

Table 2: Results of Diagnostic Investigations carried out on Mr. T. R. Cont'd...

Date	Specimen	Investigation	Results	Normal Values	Interpretation	Remarks/ Treatment
07/12/2022	Blood	**Full Blood Count** Haemoglobin level estimation	12.7g/dL	**Female**: 11-14g/dL **Male**: 12-16g/dL **Children**: 13-18g/dL	Patient's hemoglobin level was within normal range which indicated that the patient is not anaemic.	No treatment was given.
		White blood cell count.	13.6 IU/L	(2.8 – 8.0) IU/L	White blood cell count is above normal indicating presence of infection. Neutrophil and Red blood cell count are within normal ranges.	Antibiotics; Intravenous Ciprofloxacin 400mg bd x 24 hours. Intravenous Metronidazole 500mg tds x 24 hours was administered.
		Red blood cells count	3.5 IU/L	(2.5 – 4.0) IU/L		
		Neutrophils count	54.5 %	(37.0 – 72.0) %		

B. Causes of Client's Condition

With reference to the literature review, Mr. T.R.'s condition was due to the presence of infection.

Clinical Features/Signs and Symptoms

Table 3: Clinical Features of Mr. T. R. compared with those in the Literature Review.

Clinical Features in Literature Review	Clinical Features exhibited by client
1. Abdominal pain at the McBurney point	1. Client experienced pain at the McBurney point
2. Anorexia	2. Client had no loss of appetite
3. Nausea and Vomiting	3. Client experienced nausea and vomiting
4. Constipation and Diarrhea	4. Client had no constipation and Diarrhea
5. Fever	5. Client had high body temperature (38.7^{0}C)
6. Rebound Tenderness	6. Client felt pain when pressure is released
7. Dysuria	7. Client experienced pain when urinating
8. Positive Rovsings sign	8. There was Rovsing's sign which was confirmed by the doctor during physical examination.

C. Special Medical Treatment given to patient

Treatment refers to the mode of dealing with a patient or disease (Taylor, 2019).

The following were used in the treatment of the condition:

1. IV Ciprofloxacin 400mg BD x 4 days
2. IV Metronidazole 500mg TDS X 4 days
3. IV paracetamol 1g TDS X 4 days
4. IV Dextrose 5% 2L X 24 hours for 3 days
5. IV Ringers Lactate 1L X 24 hours for 3 days

Table 4: Treatment given to Client as compared with Literature Review.

Treatment outlined in the Literature Review	Treatment given to my patient
i. Antibiotics e.g.; Ciprofloxacin, Metronidazole	i. IV Ciprofloxacin ii. IV Metronidazole
ii. Crystalloids IV fluids e.g.; Dextrose, Normal saline, Ringers Lactate	i. IV Dextrose 5% ii. IV Ringers Lactate
iii. Intake and output	Intake and output was monitored
iv. Antipyretics e.g.; paracetamol	i. IV paracetamol
v. Analgesics e.g.; paracetamol, morphine	i. IV paracetamol
vi. Surgery (Appendectomy)	i. No surgical treatment was given to patient

From the above table, comparison of treatment in the literature review with the treatment given to patient indicates that Mr. T. R. received the right treatment which contributed to his rapid recovery.

Table 5: Pharmacology of Drugs Administered to Patient.

Date	Drug	Dosage/ Route of Administration (Literature)	Dosage/ Route of Administration Given to Patient	Classification	Desired Effect	Actual Action Observed	Side Effects/ Remedies
07/12/2022	Ciprofloxacin	**Dosage**: **Adult:** 500 – 750 mg x bd **Child**: 1 month – 18 years 20mg/kg x bd **Route**: Orally and Intravenously	**Dosage**: 400mg BD x 4 days **Route**: Intravenously	Antibiotics (Quinolones)	To treat bacterial infection and it also serves as prophylaxis	Bacterial infection was controlled.	Skin rash, dizziness, drowsiness and insomnia, stomach pains or discomfort, diarrhea, nausea and vomiting. No side effect was observed in patient.
07/12/2022	Ringers Lactate Infusion	**Dosage**: Amount depends on patient's fluid and electrolyte level as well as doctor's prescription. **Route**: Intravenously	**Dosage**: 1 litre for 24 hours **Route**: Intravenously	An Isotonic crystalloid solution.	For fluid and electrolyte replacement	Patient was well hydrated.	Itching, swelling of the eyes, face or throat, coughing, sneezing or difficulty in breathing. None was observed in patient.
07/12/2022	Paracetamol	**Dosage**: **Adult**: 0.5 – 1g every 4 – 6 hours; maximum 4g per day. **Child**: 8-9 years: 360-375 mg every 4-6 hours; maximum 4 doses per day **Route**: Orally and Intravenously	**Dosage**: 1g tds x 4 days **Route**: Intravenously	Anti – pyretic/ Analgesic	To reduce fever and reduce pain by the inhibition of prostaglandin synthesis.	Patient had a reduction in pain and experienced decrease in temperature.	Nausea, vomiting, drowsiness and abdominal pain. Patient experienced no side effects

Table 5: Pharmacology of Drugs Administered to Patient Cont'd...

Date	Drug	Dosage/ Route of Administration (Literature)	Dosage/ Route of Administration Given to Patient	Classification	Desired Effect	Actual Action Observed	Side Effects/ Remedies
07/12/2022	Dextrose 5%	**Dosage**: Amount depends on patient's fluid and electrolyte level as well as doctor's prescription. **Route:** Intravenously	**Dosage**: 2 litres for 24 hours **Route**: Intravenously	Isotonic solution of glucose, sodium, chloride and water; a total parenteral nutrition component. A caloric agent and as a fluid volume replacement	Provide a rapid available energy source to the body.	Patient had energy	Hypocalcaemia, water intoxication, osmotic diuretics, transient hyperinsulinism. None was observed in patient.
07/12/2022	Metronidazole	**Adult:** 250mg-500mg **Children:** 7.5 mg/kg (125-250 mg) **Route:** Intravenously, Orally, Topical	**Dosage**: 500mg tds x 4 days **Route**: Intravenously	Antibiotic, antibacterial, antiprotozoa, antiulcer agents.	Inhibits deoxyribonucleic acid (DNA) or it disrupts (DNA) and protein synthesis in susceptible organisms.	Bacterial infection was controlled.	Headaches, dizziness, anorexia, nausea, vomiting, dry-mouth, phlebitis at IV site. None wzas observed in the patient.

D. Complications

According to Taylor (2019), complication is an accident of second disease process arising during the course of or following the primary condition which may be fatal.

Table 6: Comparison of Complications in Literature Review with what Patient Developed.

Complications in Literature Review	Complications developed by patient
1. Peritonitis	1. Not developed by patient
2. Abscess formation	2. Not developed by patient
3. Adhesion	3. Not developed by patient
4. Gangrene.	4. Not developed by patient

With reference to the literature review, the complications of Acute Appendicitis include; Peritonitis, Abscess formation, Adhesion and Gangrene. Patient developed none of the above-mentioned complications. Surgery was not performed on patient.

2.2 Patient/Family's Strength

Strength refers to the physical power and energy that makes an individual determined in dealing with difficult or unpleasant situations (Longman, 2019). The following strengths were observed in Mr. T. R. and family during their period of hospitalization.

1. Patient verbalizes that his body feels warm to touch.
2. Patient could express the intensity of the pain.
3. Patient can verbalize the number of times he has vomited.
4. Patient could cooperate and answered all questions asked.
5. Patient could mention few signs and symptoms about acute appendicitis.

2.3 Patient's Health Problems

Problem is defined as a situation that causes difficulties or a disorder with your health or with part of your body (Longman, 2019). From the data collected during assessment, the following health problems were observed in Mr. T. R. and family during their period of hospitalization.

1. Patient had high body temperature of 38.7^0C (07/12/2022)
2. Patient complained of pain at the right lower quadrant of the abdomen (07/12/2022)
3. Patient complained of vomiting (07/12/2022)
4. Patient was anxious (08/12/2022).
5. Patient has less knowledge on appendicitis (08/12/2022)

2.4 Nursing Diagnosis

North American Nursing Diagnosis Association (NANDA) defined nursing diagnosis as a clinical judgment about individual, family, or community responses to actual or potential health problems/life processes (Gale Encyclopedia of Nursing and Allied Health, 2019). Nursing diagnoses provide the basis for selection of nursing interventions to achieve outcomes for which the nurse is accountable.

1. Pyrexia (38.7) related to inflammation response (07/12/2022)
2. Pain (at the right lower quadrant of the abdomen) related to disease condition (07/12/2022)
3. Risk of electrolyte imbalance related to vomiting (07/12/2022)
4. Anxiety related to hospitalization and unknown outcome of the condition (08/12/2022)
5. Knowledge deficit related to lack of adequate information on appendicitis (08/12/2022)

CHAPTER THREE

PLANNING FOR PATIENT/FAMILY CARE

3.0 Introduction

Planning is the process in which the nurse and patient together consider the goals to achieve in meeting the patient's identified or potential problems in daily life and produce an individual care plan (Taylor, 2019). Planning is the third step of the nursing process which includes the formulation of guidelines that establish the proposed course of nursing action in the resolution of nursing diagnoses and the development of the patient's plan of care (Delaune & Ladner, 2018).

The patient's care plan is written based on the data collected which is translated into nursing diagnosis. This will help meet the patient's needs, thereby eliminating or minimizing patient problems.

3.1 Objective/Outcome Criteria

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

1. Patient's body temperature will fall within normal range (36.2 - 37.2)^{0}C in 4 hours evidence by;
    a. Nurse recording a temperature of 36.2^{0}C - 37.2^{0}C
    b. Patient verbalizing he no longer feels warm to touch.
2. Patient's pain will subside within 24 hours evidence by;
    a. Patient verbalizing pain has subsided.
    b. Nurse observing patient having a cheerful facial expression and increased participation in activities.

3. Patient will maintain his normal fluid and electrolyte status during hospitalization evidence by:
    a. Nurse observing patient to have improved skin turgor following assessment.
    b. Patient verbalizing that the vomiting has subsided.
4. Patient will demonstrate that he is less anxious within 24 hours evidence by;
    a. Patient and relatives coping with nursing processes.
    b. Nurse observing the patient and relatives having a relaxed facial expression.
5. Patient will have adequate knowledge about appendicitis within 24 hours evidence by;
    a. Patient verbalizing basic understanding about the disease process, causes, treatment and management.
    b. Patient giving feedback information on knowledge acquired to the nurse.

Table 7: Below shows the Nursing Care Plan for Mr. T. R.

Date/Time	Nursing Diagnosis	Objective/ Outcome Criteria	Nursing Orders	Nursing Intervention	Date/Time	Evaluation	Sign
07/12/2022 at 6:00pm	Pyrexia (38.7) related to inflammation response.	Patient's body temperature will fall within normal range (36.2 - 37.2)^{0}C in 4 hours evidence by; a. Nurse recording a temperature of 36.2 - 37.2^{0}C. b. Patient verbalizing he no longer feels warm to touch.	1. Tepid sponge patient. 2. Monitor patient's vital signs every 30 minutes especially temperature. 3. Ensure adequate ventilation. 4. Remove excess clothing from patient. 5. Administer patient's prescribed anti-pyretic	1. Tepid water was used to tepid sponged patient to ensure temperature fall within normal (36.2 - 37.2)^{0}C 2. Patient's blood pressure, oxygen saturation (SPO2), pulse, respiration and temperature were monitored in which temperature read 36.9 degrees Celsius. 3. Windows were opened and fans were switched on to allow adequate ventilation in the room. 4. Excess blankets and shirts were removed from the patient. 5. IV Paracetamol 1g was served to reduce the temperature to normal (36.2 - 37.2) ^{0}C	7/12/2022 at 10:00pm	Goal fully met as patient verbalized he no longer feels warm to touch and nurse read a temperature of 36. 9^{0}C	O. A. J.

Table 7: Below shows the Nursing Care Plan for Mr. T. R. Cont'd...

Date/Time	Nursing Diagnosis	Objective/ Outcome Criteria	Nursing Orders	Nursing Intervention	Date/Time	Evaluation	Sign
07/12/2022 at 6:30pm	Pain (at the right lower quadrant of the abdomen) related to disease condition	Patient's pain will subside within 24 hours evidence by; a. Patient verbalizing pain has subsided. b. Nurse observing patient having a cheerful facial expression and increased participation in activities.	1. Assess patient level and intensity of pain. 2. Monitor patient's vital signs 4 hourly. 3. Put patient in a comfortable position. 4. Engage patient in a diversional therapy. 5. Administer prescribed Analgesics.	1. Patient level and intensity of pain were assessed using numerical rating scale rating from 0 - 10 and Mr. T.R. chose 4 - 6 to note his pain intensity. 2. Patient's blood pressure, oxygen saturation (SPO2), pulse, respiration and temperature were monitored to correct any deviation in the vital signs. 3. Patient was put in a semi fowler's position to enhance patient's comfort. 4. Patient was engaged in a football conversation. 5. IV Paracetamol 1g was administered to reduce the pain.	8/12/2022 at 6:30pm	Goal fully met as patient verbalized pain has subsided and Nurse observed patient having a cheerful facial expression and increased participation in activities. .	O. A. J.

Table 7: Below shows the Nursing Care Plan for Mr. T. R. Cont'd...

Date/Time	Nursing Diagnosis	Objective/ Outcome Criteria	Nursing Orders	Nursing Intervention	Date/Time	Evaluation	Sign
07/12/2022 at 7:10pm	Risk for deficient fluid and electrolyte imbalance evidence by vomiting.	Patients will maintain his normal fluid and electrolyte status during hospitalization evidenced by: a. Nurse observing patient to have improved skin turgor following assessment. b. Patient verbalizing that the vomiting has subsided.	1. Monitor patient's weight daily and consistently with the same scale. 2. Monitor patient's skin turgor and mucus membrane for signs of dehydration. 3. Administer parenteral fluids as prescribed. 4. Monitor and maintain patient's fluid rate. 5. Maintain accurate intake and output records.	1. Patient's weight was monitored every morning with the same scale to know if there is deviation in patient's weight. 2. Patient's skin turgor and mucus membrane were assessed for signs of dehydration by pinching the patient and assessing for skin return. 3. 1 litre of intravenous Ringers Lactate was administered. 4. Patient's fluid rate was monitored and maintained to prevent cardiac overload. 5. Intake and output were monitored and recorded to help know the amount of fluids to administer and to prevent cardiac overload or dehydration.	11/12/2022 at 9:00am	Goal fully met as Nurse observed patient to have improved skin turgor following assessment and patient verbalized that vomiting has subsided.	O. A. J.

Table 7: Below shows the Nursing Care Plan for Mr. T. R. Cont'd...

Date/Time	Nursing Diagnosis	Objective/ Outcome Criteria	Nursing Orders	Nursing Intervention	Date/Time	Evaluation	Sign
08/12/2022 at 9:00am	Anxiety related to hospitalization and unknown outcome of the condition	Patient will demonstrate that he is less anxious within 24 hours evidence by; a. Patient verbalizing he feels less anxious and coping with nursing processes. b. Nurse observing the patient having a relaxed facial expression	1. Assess patient's level of anxiety. 2. Reassure patient and relatives. 3. Allow patient and family to ask questions on whatever is bothering their mind. 4. Engage patient in a diversional therapy. 5. Explain every procedure to be carried out to the patient.	1. Patient's level of anxiety was assessed through his verbal and non-verbal cues. 2. Patient and relatives were reassured that there is effective and efficient management to promote his recovery. 3. Patient asked about the outcome of the condition and it was explained to him that he will either go through a surgical procedure or will be managed on medications until the problem resolves. 4. Patient was engaged in a conversation about his work and was made to listen to a radio. 5. Nursing procedures which would be done on him was well explained to his understanding.	9/12/2022 at 9:00am	Goal fully met as patient verbalized he feels less anxious and coping with nursing processes and Nurse observing the patient having a relaxed facial expression	O. A. J.

Table 7: Below shows the Nursing Care Plan for Mr. T. R. Cont'd...

Date/Time	Nursing Diagnosis	Objective/ Outcome Criteria	Nursing Orders	Nursing Intervention	Date/Time	Evaluation	Sign
8/12/2022 at 10:30am	Knowledge deficit related to lack of adequate information on appendicitis.	Patient will have adequate knowledge about appendicitis within 24 hours evidence by; a. Patient verbalizing basic understanding about the disease process, causes, treatment and management. b. Patient giving feedback information on knowledge acquired to the nurse.	1. Assess patient's knowledge on condition. 2. Provide a quiet atmosphere for learning without interference. 3. Allow patient to ask questions for clarification. 4. Answer questions in a simple and understandable language without using professional jargons. 5. Ask patient to summarize what he heard.	1. Patient's knowledge on appendicitis was assessed by asking questions on the signs and symptoms of appendicitis. 2. Nearby radio set was tuned off to produce a quiet atmosphere for learning. 3. Patient was allowed to ask questions for clarification. 4. Mr. T. R.'s questions were answered in 'twi' without any medical jargon. 5. Patient was asked to summarize what he heard to ascertain if learning has taken place.	9/12/2022 at 10:30am	Goal fully met as patient verbalized the basic understanding about the disease process, its treatment and gave feedback information on knowledge acquired to the nurse.	O. A. J.

CHAPTER FOUR

IMPLEMENTATION OF PATIENT /FAMILY CARE PLAN

4.0 Introduction

The implementation phase of the nursing process involves carrying out the proposed plan of nursing care. The nurse assumes responsibility for the implementation and coordinates the activities of all those involved in implementation, including the patient and family, other members of the nursing team, and other members of the health care team, so that the schedule of activities facilitates the patient's recovery (Hinkle & Cheever, 2018). This aspect of study deals with a description of the actual nursing care rendered to Mr. T.R. and family during the period of hospitalization. It further describes the preparation made towards discharge and follow ups including the home visits made to the patient's home and community while he was on admission and after discharge.

4.1 Summary of Actual Nursing Care Rendered to Mr. T. R.

Management of the patient was aimed at a successful medical treatment and nursing care to relieve Mr. T. R. of all problems he had as well as maintaining optimal physiological function of patient so that he could return to normal health. Nursing care rendered to Mr. T. R. started on the day of his admission, Wednesday, December 7, 2022 until he was discharged on Sunday, December 11, 2022. During admission, daily routine nursing care was carried out such as bed making, serving of prescribed medications etc. Vital signs were monitored and recorded accordingly. Specific care was rendered according to patient's needs.

First Day of Admission (December 7, 2022).

On Wednesday, December 7, 2022 at 5:30 pm, Mr. T. R. was admitted to the surgical ward through the Emergency Unit at the Holy Family Hospital, Berekum in a wheelchair, accompanied by four student nurses and a relative. Patient was fully conscious and well oriented to time, place and person. I was then asked to carry out his admission. I took over Mr. T. R. from the accompanying nurse. Mr. T. R. complained of pain at the right lower quadrant of the abdomen and was restless. Upon physical examination, patient had positive Rovsing's sign (referred pain) and high body temperature of 38.7^0C. The patient's information was cross-checked which includes his name, age, residential address, next of kin and religion. A quick assessment of his general appearance was made, intravenous line was secured. Mr. T. R. and his relatives were then welcomed and immediately admitted and made comfortable in an already made admission bed. His vital signs were checked and recorded as;

1. Temperature - 38.7^0C
2. Pulse - 98 beats per minute
3. Respiration - 21 cycles per minute
4. Blood Pressure - 144/80 millimetre of mercury.
5. Oxygen saturation (SPO2) - 96%

Patient temperature recorded 38.7^0C and patient was very warm to touch, his heavy clothes were removed leaving the less heavy on, nearby windows were opened, he was tepid sponged and vital signs were monitored every 30 minutes after each tepid sponging. Patient temperature reduced to 36.9^0C. The site of appendiceal mass was marked to monitor for the size of the appendiceal mass. It was explained to him that either surgery will be done if the appendiceal mass increases or he will be managed medically till the appendiceal mass resolves. He became anxious when he was

admitted at the ward. He was reassured of the competencies of the theater team that he will be operated on safely if the surgery will take place. Mr. T. R. was put on Nil Per Os and intravenous medications were administered. Hospital policies regarding visiting periods, payment of bills and the time vital signs will be checked, when there will be ward rounds and time for medications were explained to him. Patient and his relative were oriented to the ward and its surroundings and welcomed. He confirmed of having a National Health Insurance card, therefore part of the bills will be settled by it. He was introduced to the staff present and was reassured of a competent nursing care that everything about Mr. T. R. will be done with much care to ensure delivery of quality health care.

Investigations requested were as follows:

1. Full Blood Count.
2. Abdominal Scan.
3. Blood Urea Nitrogen/Creatinine Examination.
4. Blood for Grouping and cross matching.

Treatments prescribed were;

1. IV Ciprofloxacin 400mg BD x 4 days
2. IV Metronidazole 500mg TDS X 4 days
3. IV Paracetamol 1g TDS X 4 days
4. IV Dextrose 5% 2L X 24 hours for 3 days
5. IV Ringers Lactate 1L X 24 hours for 3 days

He was put on Nil Per Os (NPO) for 24 hours to monitor for the size of his appendiceal mass and also to prevent any further complications when he takes in anything by mouth. The intravenous medications were obtained from the pharmacy and the stat doses were administered according to

the prescription. Planning for patient discharge began right from the day of admission. His relative was assisted to arrange his personal items into the bed side locker. I went to engage him and the relative in a therapeutic conversation where I sought a permission from them to use Mr. T. R and his family for patient/family care study. I explained to them in simple language what it will entail and promised to make information gathered confidential. I made patient and family understand that, other health care members will play their role in the care of Mr. T. R. but I will mostly have an encounter with them and that in my absence other colleagues will continue the care. Patient/family care study is to enable me render to him individualized comprehensive nursing care until discharged. I further told them that I am a final year student from Holy Family Nursing and Midwifery Training College-Berekum, writing a family/patient care study and if given their consent, I would care for Mr. T. R. until full recovery is attained. I informed them that it was a requirement by the Nursing and Midwifery Council that has to be carried out as a partial fulfillment for award of license to practice as professional Registered General Nurse in the country. I informed them about home visiting to see how he is doing. He was very happy and agreed to my request and promised to co-operate fully in caring for him. I decided to use the patient for my care study because I wanted to have more knowledge on Acute Appendicitis. Discharge planning was initiated by educating them on the causes, signs and symptoms and the management of acute appendicitis.

At 6:00pm, a nursing diagnosis, Hyperthermia (38.7^0C) related to inflammation response was formulated and the objective that; patient's body temperature will fall within normal range (36.2 – 37.2)^{0}C in 4 hours was made to help manage fever. The following interventions were carried out to ensure a reduction in his temperature; Tepid water was used to tepid sponged patient to ensure temperature fall within normal (36.2 - 37.2) ^{0}C, Patient's blood pressure, oxygen saturation (SPO2),

pulse, respiration and temperature were monitored in which temperature read 36.9^{0}C, Windows were opened and fans were switched on to allow adequate ventilation in the room, Excess blankets and shirts were removed from the patient, IV Paracetamol 1g was served to reduce the temperature to normal $(36.2 - 37.2)^{0}$C.

At 6:30pm, the nursing diagnosis pain at the right lower quadrant of the abdomen related to disease condition was formulated with the objective; Patient's pain will subside within 24 hours was made to manage the patient. The interventions that were carried out to ensure reduction in his pain were; Patient level and intensity of pain was assessed using numerical rating scale and Mr. T.R. chose 4 - 6 to note his pain intensity, Patient's blood pressure, oxygen saturation (SPO2), pulse, respiration and temperature were monitored to correct any deviation in the vital signs, Patient was put in a semi fowler’s position to enhance patient’s comfort, Patient was engaged in a football conversation, and IV Paracetamol 1g was administered to reduce the pain.

Due medications were served (IV Paracetamol 1g, IV Metronidazole, IV Ciprofloxacin and IV Dextrose 5%)

At 7:10pm, patient vomited and his relative also admitted that patient had been vomiting before his admission and hence the nursing diagnosis; Risk for deficient fluid and electrolyte imbalance evidenced by vomiting was formulated and the objective that; patient will maintain his normal fluid and electrolyte status during hospitalization was made to help manage patient. The following interventions were carried out to achieve the said objective; Patient’s weight was monitored every morning with the same scale to know the patient’s weight, Patient’s skin turgor and mucus membrane were assessed for signs of dehydration by pinching and assessing skin return, 1 litre of intravenous Ringers Lactate was administered, Patient’s fluid rate was monitored and maintained

to prevent cardiac overload, Intake and output were monitored and recorded to help know the amount of fluids to administer and to prevent cardiac overload or dehydration.

Due medication was administered at 8:00pm. Vital signs were checked and recorded at 10:00pm as Temperature – 36.9^0C, Pulse - 64 beats per minute, Respiration - 20 cycles per minute, Blood Pressure – 142/70 mmHg, Oxygen saturation (SPO2) - 97%. He was monitored and handed over to the night nurses at 10:00pm.

At 10:00pm, the objective that was set to reduce temperature at 6:00pm was evaluated and goal fully met as patient verbalized he no longer feels warm to touch and nurse recorded a temperature of 36.9^0C.

Second Day of Admission (8th December, 2022).

Mr. T. R. woke up at 5:45am according to night nurses who handed him over to me. On the second day of admission, at 7:00am, I went to the ward to continue with my nursing care for Mr. T. R. His morning vital signs had already been checked at 6:00am and recorded as in appendix. The night nurses reported to me that all due medications; IV Dextrose 5% 500mls, IV Paracetamol and IV Metronidazole were administered according to plan and also 600mls of urine was drained at 12:15am. After the checking of vital signs, the nurse made it known to me that, they assisted my patient to the washroom for him to bath and brush his teeth. Patient bed was straightened and was made comfortable in bed.

During the In – patient review at 7:30am, Dr. K. and the surgical team attended to Mr. T. R. and the plan was to continue his medications, to do intake and output chart and additional 24hrs of Nil Per Os was added to the plan.

At 9:00am, Mr. T. R. became anxious because he didn't know what was going on with him though the doctor explained everything to him but he was not certain with that hence the nursing diagnosis anxiety related to hospitalization and unknown outcome of the condition was formulated and the objective; Patient will demonstrate that he is less anxious within 24 hours was made to assist patient become less anxious. The following interventions were carried out to achieve the said objective; Patient's level of anxiety was assessed through his verbal and non-verbal cues, Patient and relatives were reassured that there is effective and efficient management to promote his recovery, Patient asked about the outcome of the condition and it was explained to him that he will either go through a surgical procedure or will be managed on medications until the problem resolves, Patient was engaged in a conversation about his work and was made to listen to a radio, Nursing procedures which would be done on him was well explained to his understanding. His due medications were administered (IV metronidazole and IV Paracetamol).

His 10:00am vital signs were checked and recorded as Temperature – 36.1 degrees Celsius, Pulse – 80 beats per minute, Respiration - 20 cycles per minute, Blood Pressure – 130/80 mmHg, Oxygen saturation (SPO2) - 97%.

At 10:30am, my interaction with Mr. T. R. and family revealed that they had less knowledge on the condition and hence the nursing diagnosis, knowledge deficit related to inadequate information about appendicitis, its treatment, and prevention was formulated and objective that; patient will gain adequate information about appendicitis, treatment and prevention within 24 hours was made to help patient have adequate knowledge about his condition. The following interventions were carried out to achieve the said objective; Patient's knowledge on appendicitis was assessed by asking questions on the signs and symptoms of appendicitis, Nearby radio – set was tuned off to produce a quiet atmosphere for learning, Patient was allowed to ask questions for clarification, Mr.

T. R.'s questions were answered in 'twi' without any medical jargon, Patient was asked to summarize what he heard to ascertain if learning has taken place. Due medication was administered and urine of 900mls was drained at 1:00pm.

At 2:00 pm, his vital signs were checked and recorded as; Temperature – 37.1 degrees Celsius, Pulse – 85 beats per minute, Respiration - 20 cycles per minute, Blood Pressure – 117/77 mmHg, Oxygen saturation (SPO2) - 97%.

At 6:00pm, Patient's vital signs were checked and recorded as; Temperature – 36.7 degrees Celsius, Pulse – 84 beats per minute, Respiration - 19 cycles per minute, Blood Pressure – 158/87 mmHg, Oxygen saturation (SPO2) - 96%. Due medications were administered (IV Ciprofloxacin 400mg, IV Metronidazole 500mg, IV Dextrose 5% 500mls, IV Paracetamol 1g). Patient had no further complaints. Patient's urine of 400mls was drained.

At 6:30pm, evaluation on the goal set on 7th December, 2022 to relieve patient's abdominal pain was done. Goal fully met as patient verbalized pain has subsided and Nurse observed patient having a cheerful facial expression and increased participation in activities.

Mr. T. R.'s vital signs were checked and recorded at 10:00pm as in appendix.

Third Day of Admission (9th December, 2022)

From the night nurses, due medications (IV Dextrose 5% 500mls and IV Metronidazole 500mg) were administered overnight and patient's urine of 400mls with amber color was drained at 12:00am.

Mr. T. R. woke up around 5:40am, took his shower and brushed his teeth according to the night nurses. His morning vital signs were checked and recorded as in appendix and also 300mls of urine

was drained at 6:00am. During ward rounds at 8:00am, Dr. K. attended to my patient and assessed him by palpating the site of the appendiceal mass to see the state of the mass. The appendiceal mass had reduced which served as a sign of patient recovering from his condition. Dr. K. Added to the plan that his medications were be to continue but hold IV Dextrose 5%. Dr. K. also added to the plan that, Mr. T. R. can start with sips such as water.

At 9:00am, I evaluated the objective that was set to allay anxiety on 8th December, 2022 and goal fully met as patient verbalized, he feels less anxious and coping with nursing processes and Nurse observed the patient having a relaxed facial expression.

At 10:00am, patient's vital signs were checked and recorded as in appendix. Patient was served with 500mls of water.

At 10:30am, I evaluated the objective set on 8th December, 2022 to help patient have adequate knowledge about disease condition and goal fully met as patient verbalized the basic understanding about the disease process, its treatment and gave feedback information on knowledge acquired to the nurse. Due medication was administered. Patient was served with porridge in the in the afternoon.

At 2:00pm, Mr. T. R.'s vital signs were checked and recorded as in appendix. Patient was told to ambulate and also to do Range of Motion (ROM) exercise. Evening vital signs were checked and recorded at 6:00pm as in appendix. Due medications were administered and 10:00pm vital signs were checked and recorded as in appendix.

Fourth Day of Admission (10th December, 2022)

From the night nurses, IV Metronidazole 500mg was administered during the night shift. On this day, patient woke up around 5:30am and reported to have a sound night. Patient had really improved. He performed his personal hygiene by brushing his teeth and bathing. Mr. T. R.'s morning vital signs at 6:00am were checked and recorded as in appendix.

During ward rounds at 9:15am, patient had no complaints and patient was well recovered. The doctor made it known to Mr. T. R. and relatives of possible discharge the next day if condition doesn't change again and they were very happy about that. We later had conversation regarding work and activities that will promote their health. Patient was alert and conscious.

At 10:00am, patient's vital signs were checked and recorded. I engaged Mr. T. R. in a conversation to see how he was doing and he verbalized that he was doing great and besides had no further complaints.

I embarked on my first home visit after work. I went with the patient's wife with the aim to be familiar with patient's environment.

At 2:00pm, patient's vital signs were checked and recorded. Mr. T. R. was served with 'ampesi' and garden eggs stew as supper. He performed his personal hygiene after his meal in the evening and his vital signs were checked and recorded at 6:00pm.

Mr. T. R. was made comfortable in bed after he was done bathing. Evening medications were served and his vital signs were checked and recorded at 10:00pm as in appendix. He slept around 10:30pm.

Fifth Day of Admission/Day of discharge (11th December, 2022).

From the night nurses, patient woke up feeling strong and better. Message from night nurses indicated that Mr. T. R. was able to sleep well. I greeted Mr. T. R. and his relative and they responded with a cheerful facial expression. His morning vital signs had already been checked and recorded at 6:00am as follows: Temperature - 36.2^{0}C, Pulse - 84bpm, Respiration - 24cpm, BP - 110/70mmHg and SPO2 – 98%.

At 9:00am, I evaluated the objective that was set on 7th December, 2022 that Patient's would maintain his normal fluid and electrolyte status during hospitalization and goal fully met as nurse observed patient to have improved skin turgor following assessment and patient verbalized that vomiting has subsided.

At 9:30am during routine ward rounds, Mr. T. R. was discharged since his condition was stable and he had no complains. His relative was informed and the bill was assessed to be paid. Mr. T. R. and relative were educated on the need to keep their surroundings clean. He was informed to come for review on Thursday, 22nd December, 2022 at the Out Patient Department. The need to continue with medications was emphasized and review date was stressed on by myself. Patient and family bid the ward inmates and staffs goodbye. The bed linen used was removed and the bed and locker were disinfected with 0.5% bleach. They were seen off by me.

Mr. T. R. was discharged home on Tab Ciprofloxacin 500mg bd X 10/7, Tab Metronidazole 400mg tds X 10/7. I educated the patient's relative on the kind of foods to desist from as he takes these drugs such as egg, yoghurt and milk which can give undesirable effect.

4.2 Preparation of Patient/Family for Discharge and Rehabilitation

Preparation for discharge commenced from the time of admission at the hospital, at 6:00pm on 7th December, 2022 till the last day of visit. The patient and family were informed that staying in the hospital was for a temporal period of time. Education of patient and family on the causes, clinical features, treatment and management of acute appendicitis were reemphasized. This was aimed at helping the patient and relatives in the provision of adequate care. Patient was encouraged to take in food rich in the essential food nutrients especially fruits and vegetables. Patient and his family were also educated on the need to maintain personal and environmental hygiene to help improve immunity. A great emphasis was made on the need to continue with medication and to report to the hospital if any problem occurs. I educated patient about the effects of the use of over-the-counter drugs and urged him to seek medical care from any health center. Patient was informed to come for review on Thursday, 22nd December, 2022. Necessary information was recorded into the admission and discharge book. Assessments of patient bills were made with the help of National health insurance scheme which took part of the bills. Patient belongings were packed and I accompanied them to the hospital gate.

4.3 Follow Up/ Home Visit/ Continuity of Care

Home visit is a visit made by a health professional to a patient's home, usually with face-to-face contact between the health professional and the patient, less commonly between health professional and the patient's family. Home visits were done before and after patient's discharge. It is friendly but a purposeful visit to client home. Health education was given and the need for the prevention of complications were reemphasized. It provided a good account on the causes and predisposing factors of patient's illness.

First Home Visit (10th December, 2022).

My first home visit was made on Saturday, 10th December, 2022 thus; the 4th day of admission to Adom, a 60km journey from Holy Family Hospital, Berekum. I visited their home on this day while patient was on admission. On the day of admission, I explained to him that it is a requirement and part of the care. The purpose of this visit was to assess the home environment of my patient and to give appropriate health educations to his family before his discharge on general cleanliness and safeguard methods to prevent themselves from injury. I left Holy Family Hospital, Berekum around 2:30pm and safely arrived at my patient's house at around 2:45pm with patient's wife, I greeted and I was warmly welcomed by my patient's mother who gave me a comfortable seat and offered me water as tradition demands. I was asked of my mission so I introduced myself to them as a final year nursing student as said above and the need for the visit.

My patient lives in compound house built with blocks and roofed with aluminum sheets with 7 rooms, a kitchen, two water closet seats and two washrooms. The kitchen has been used for another purpose instead of cooking. The entire household packs their unused old items there. Their house is source with electricity from the Volta River Authority. During my interactions with patient's mother, she revealed to me that their place of convenience was not a problem because there was a toilet in the house. Patient has a portable dust bin close to cooking area in which he empties it often on to the refuse dump and the source of water from a tap at the house. I also realized that water containers were not properly covered and I told them to cover it always after each fetch. No health facility was identified nearby. Patient and his family live in the house with other tenants. Based on the above findings, I reinforced on the need to cover water containers and food to prevent contamination and also distance the bin from cooking area. The need to ensure proper ventilation was also stressed on. Hand washing with soap before and after eating and also after visiting the

toilet were all said to the family to be part of maintaining good personal hygiene. Mr. T. R.'s condition, the causes, signs and symptoms, management and prevention were explained to them. They were therefore reassured that Mr. T. R. will soon get well and be discharged home. Finally, they were encouraged to ask questions and answers were provided in simple terms to enhance their understanding. I thanked them for their hospitality and they thanked me too. I left the house around 3:20pm.

Second Home Visit (15th December, 2022).

This visit was made on Thursday, 15th December, 2022 at 4pm, as it was scheduled with Mr. T.R. and family to pay them a second visit. The purpose of this visit was to ascertain whether the education given to them during the period of hospitalization and first home visit had been adhered to and also to remind them of the review date which was on Thursday, 22nd December, 2022. On arrival, patient and his wife were all waiting to receive and welcome me. I made enquiries about their health which they responded positively. On assessment, the environment was neat and they were commended for that. Education on good nutrition was stressed on to help protect client and family from any diseases. I reminded them of the review date and the need for the review. Patient wanted to know more about appendicitis so I downloaded a video on appendicitis and showed to him to have a view of it. I educated them on need to comply with the medications and the need to seek for medical assistance when he is not feeling well. Client and family were thanked for their cooperation and permission was sought to leave. I promised them of another visit which will be my last. Patient escorted me to the entrance where I parked my motorcycle, I bid him goodbye and came back to my house at Sofo Kyere.

Day of Review (22nd December, 2022).

On Thursday, 22nd December, 2022, Mr. T. R. and Mrs. A. E. were met at the Out-Patient Department of Holy Family Hospital, Berekum at 9:10am looking cheerful and lovely as noted from facial expression. The vital signs checked and recorded as follows;

1. Temperature - 36.0°C
2. Pulse - 80bpm
3. Respiration - 22cpm
4. BP - 110/70mmHg

Upon assessment by the doctor, Mr. T. R. was healthy and did not make any complains. He was to do an abdominal scan and the scan results revealed that, there was no evidence of appendicitis or appendical mass seen.

He was then told not to hesitate to report to the hospital if he should encounter any health problem. He was also encouraged to practice personal and environmental hygiene to protect him from getting diseases and injuries. Mr. T. R. was assured of a third home visit. I then accompanied them to the hospital gate where they boarded taxi home.

Third Home Visit (30th December, 2022).

The main aim for conducting the third home visit was to find out how patient and his family members were doing and to terminate the care by handing over my patient to his family to continue with the care. On Friday, 30th December, 2022 at around 1:30pm, I made my last home visit for assessment and evaluation of care. Patient and family were doing well as they looked cheerful and had no complains. The environment was tidy and there was neither rubbish nor refuse close to

them. I was warmly welcomed and offered a seat. After series of conversation, I handed over patient to the family to continue with care since there was no health facility around. I educated them on the need to live healthy life, take in more fluids and fruits and also more fibre diets to aid in metabolism and easy digestion. I encouraged them to visit a health facility often and any time need arises. They commended me for good work done and accepted to continue the care of Mr. T. R. at home.

I however stressed on the importance of regular check-ups and to seek prompt medical attention whenever they fall sick and rather than relying on self-medication. After interacting with patient and family for a while, I re-emphasized on health educations that had been given to them already. Since it happened to be my last day of therapeutic relationship with patient and family, I terminated my care and thanked them for their cooperation which made my study a success and also, since it was Christmas, I gave them an envelope with money to buy something. Family members expressed their gratitude by showing how grateful they were to me for the support and care given to them. I eventually sought permission to leave and bid them the final farewell. I board a taxi back home at around 2:15pm.

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, 2018). The chapter gives information about the statement of evaluation, amendment of nursing goals and the termination of the care rendered to my patient and family.

5.1 Statement of Evaluation

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

5.1.0 Patient was relieved of pyrexia (7th December, 2022)

On 7th December, 2022 at 6:00pm, a nursing diagnosis, pyrexia (38.7^{0}C) related to inflammation response was formulated and the objective that; patient's body temperature will fall within normal range (36.2 – 37.2)^{0}C in 4 hours. The following interventions were carried out to ensure a reduction in his temperature; Tepid water was used to tepid sponged patient to ensure temperature fall within normal (36.2 - 37.2) ^{0}C, Patient's blood pressure, oxygen saturation (SPO2), pulse, respiration and temperature were monitored in which temperature read 36.9 degrees Celsius, Windows were opened and fans were switched on to allow adequate ventilation in the room, Excess blankets and shirts were removed from the patient, IV Paracetamol 1g was administered to reduce the temperature to normal (36.2 - 37.2) ^{0}C.

On 7th December, 2022 at 10:00pm, the objective that was set to reduce temperature on 7th December, 2022 was evaluated and goal was fully met as patient verbalized, he no longer feels warm to touch and nurse recorded a temperature of 36.9^{0}C.

5.1.1 Patient lower abdominal pain subsided (8th December, 2022)

On 7th December, 2022 at 6:30pm, a nursing diagnosis, pain at the right lower quadrant of the abdomen related to disease condition was formulated and the objective that; Patient's pain will subside within 24 hours. The following interventions were carried out to achieve the said objective; Patient level and intensity of pain was assessed using numerical rating scale and Mr. T.R. chose 4 - 6 to note his pain intensity, Patient's blood pressure, oxygen saturation (SPO2), pulse, respiration and temperature were monitored to correct any deviation in the vital signs, Patient was put in a semi fowler's position to enhance patient's comfort, Patient was engaged in a football conversation, and IV Paracetamol 1g was administered to reduce the pain.

On 8th December, 2022 at 6:30pm, evaluation on the goal set on 7th December, 2022 to relieve patient's abdominal pain was done. Goal fully met as patient verbalized pain has subsided and nurse observed patient having cheerful facial expression and increased participation in activity.

5.1.2 Patient expressed less anxiety (9th December, 2022)

On 8th December, 2022 after the review at 9:00am, Mr. T. R. became anxious because he didn't know what was going on with him though the doctor explained everything to him but he was not certain with that hence the nursing diagnosis; anxiety related to hospitalization and unknown outcome of the condition was formulated and the objective; Patient will demonstrate that he is less anxious within 24 hours. The following interventions were carried out to achieve the said objective; Patient's level of anxiety was assessed through both his verbal and non verbal cues,

Patient and relatives were reassured that there is effective and efficient management to promote his recovery, Patient asked about the outcome of the condition and it was explained to him that he will either go through a surgical procedure or will be managed on medications until the problem resolves, Patient was engaged in a conversation about his work and was made to listen to a radio, Nursing procedures which would be done on him was well explained to his understanding. His due medications were administered (IV metronidazole and IV Paracetamol).

On 9th December, 2022 at 9:00am, the objective that was set that; patient will demonstrate less anxiety was evaluated and goal fully met as patient verbalized he feels less anxious and coping with nursing processes and nurse observing the patient having a relaxed facial expression

5.1.3 Patient/family gained adequate knowledge on acute appendicitis (9th December, 2022)

On 8th December, 2022 at 10:30am, my interaction with Mr. T. R. and family revealed that they had less knowledge on the condition and hence the nursing diagnosis, knowledge deficit related to inadequate information about appendicitis, its treatment, and prevention was formulated and objective that; patient will gain adequate information about appendicitis, treatment and prevention within 24 hours. The following interventions were carried out to achieve the said objective; Patient's knowledge on appendicitis was assessed by asking questions on the signs and symptoms of appendicitis, Nearby radio – set was tuned off to produce a quiet atmosphere for learning, Patient was allowed to ask questions for clarification, Mr. T. R.'s questions were answered in 'twi' without any medical jargon, Patient was asked to summarize what he heard to ascertain if learning has taken place.

On 9th December, 2022 at 10:30am, the objective that was set on 8th December, 2022 to help patient have adequate knowledge about disease condition was evaluated and goal was fully met as patient

verbalized basic understanding about the disease process, its treatment, and prognosis and patient giving feedback information on knowledge acquired to the nurse.

5.1.4 Patient's fluid and electrolyte balance was maintained (11th December, 2022)

On 7th December, 2022 at 7:10pm, patient vomited and relative also admitted that patient had been vomiting before his admission and hence the nursing diagnosis; Risk for deficient fluid and electrolyte imbalance evidence by vomiting was formulated and the objective that; patient will maintain his normal fluid and electrolyte status will be maintained during hospitalization. The following interventions were carried out to achieve the said objective; Patient's weight was monitored every morning with the same scale to know the patient's weight, Patient's skin turgor and mucus membrane were assessed for signs of dehydration by pinching and assessing for skin return, 1 litre of intravenous Ringers Lactate was administered, Patient's fluid rate was monitored and maintained to prevent cardiac overload, Intake and output were monitored and recorded to help know the amount of fluids to administer and to prevent cardiac overload or dehydration.

On 11th December, 2022 at 9:00am, I evaluated the objective that was set on 8th December, 2022, that patient's normal fluid and electrolyte status would be maintained during hospitalization and goal fully met as nurse observed patient to have improved skin turgor following assessment and patient verbalized that vomiting has subsided.

5.2 Amendment of the Nursing Care Plan

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

5.3 Termination of Care

Care of patient and family ended on Friday, 30th December, 2022 which was my last home visit. This ended the interaction between the health team and Mr. T. R. and his family. The preparation for termination started on day of admission through discharge, review to the third home visit. During these periods, Mr. T.R. and family were educated on various topics. I congratulated the family for the care they had rendered to Mr. T. R. Since there was no hospital and clinic facility available around their area, I then handed over to the family to continue with care at home and educated them on personal hygiene and the need to visit the hospital when they feel sick. I then thanked them for their co-operation. They were entreated to report to the nearest hospital whenever any ailment or disorder occurs. They were told that now that Mr. T.R. health had been restored, the care for him has officially ended. I informed them of my desire to visit them unofficially whenever I had the opportunity. They were happy and noted that they would miss my care and would strictly adhere to all instructions given to them. It was a moment to remember when I told them of my intention to leave. There was no separation anxiety as patient and the relatives had enough psychological preparations from the day of admission till discharge but it was still difficulty bidding them farewell.

CHAPTER SIX

SUMMARY AND CONCLUSION

6.0 Introduction

This is the last step of the patient/family care study which entails the student's personal appreciation of the therapeutic relationship with the patient as well as the use of the nursing process.

6.1 Summary

Mr. T. R., thirty-two years old was admitted through Emergency Unit to the surgical ward of Holy Family Hospital, Berekum on 7th December, 2022 at 5:30pm. According to Mr. T. R., he was in his usual state of health until 7th December, 2022 when he started having a severe abdominal pain. He didn't take in any medication because he didn't want to cause any complications to himself. According to him, his condition got worse in the evening and his mother, wife and sister decided to take him to the Holy Family Hospital, Berekum on that evening for medical attention. He was admitted to the Surgical Ward through the Emergency Unit of Holy Family Hospital, Berekum in a wheelchair accompanied by four student nurses and a relative. Patient was admitted with a diagnosis of Acute Appendicitis. Patient spent five days on the ward and five nursing problems were identified. These were; Patient had high body temperature (38.7^{0}C), Patient complained of pain at the lower part of the abdomen, Patient experienced vomiting, Patient was anxious, Patient had less knowledge on acute appendicitis. Nursing diagnoses were formulated for each of the problems and in order to solve these problems, objectives were set, nursing orders were implemented and goals were fully met.

Laboratory investigations requested were;

1. Full Blood Count.
2. Abdominal Scan
3. Blood Urea Nitrogen/Creatinine Examination
4. Blood for Grouping and cross matching

Mr. T. R. was managed on the following medications;

1. Intravenous Ciprofloxacin 400mg BD x 4 days
2. Intravenous Metronidazole 500mg TDS X 4 days
3. Intravenous Paracetamol 1g TDS X 4 days
4. Intravenous Dextrose 5% 2 liters every 24 hourly for 72 hours
5. Intravenous Ringers Lactate 1 liter every 24 hourly for 72 hours

Patient was also assisted in maintaining his personal hygiene, rest and sleep, nutrition, and exercises were also ensured. Patient was discharged on 11th December, 2022. On the 22nd December, 2022 patient reported for review as scheduled. It was to find out if patient/family were adhering to the advice and all the education given to them to improve their health and standard of living. Three home visits were embarked on. The first home visit was done while patient was still on admission on 10th December, 2022, the main aim of the visit was to acquaint myself with the client's home environment, to familiarize myself with the other family members, to confirm information given by my client about the family and their home environment and to find out their health needs and assist towards effective solutions to any health problems that may be identified.

Second home visit was done when the patient was discharged on the 15th December, 2022 the purpose of this visit was to ascertain whether the education given to him and his family during the

period of hospitalization and the first home visit had been adhered to and also to remind them of the review date.

Third home visit was done after the review on the 30th December, 2022 the main aim was to find out how client and his family members were doing and to terminate the care by handing over patient to the family to continue with the care. The care of Mr. T.R. and his family were terminated on the 30th December, 2022 during the third home visit when patient had fully recovered.

6.2 Conclusion

The study has equipped me with knowledge on how to care for a patient as an individual. Through this study, I have been able to put into practice actual and holistic nursing care as learnt theoretically. The study provided a therapeutic environment for nursing patient as an individual and has promoted a good nurse-patient (family) relationship as well as broadened my knowledge on appendicitis, its prevention, management and treatment. It has also helped me to practice my skills acquired in the classroom theoretically. It has deepened my relationship with patients, families and the people in a given community as a whole. It is my recommendation that all students are given the opportunity to embark on the patient/family care study to implement the nursing process in order to render individualized comprehensive care to patients/families. It also helped the patient and family to gain adequate knowledge about appendicitis, its causes, treatment and preventions. In brief, I really enjoyed every bit of writing this script despite the challenges encountered.

APPENDIX

Table 8: Vital Signs of Mr. T.R. throughout the period of hospitalization

Date	Time	SPO2 (%)	Respiration (cpm)	Blood Pressure (mmHg)	Pulse (bpm)	Temperature (^{0}C)
07/12/2023	6:00pm	96	23	144/80	98	38.7
	10:00pm	97	20	142/70	64	36.9
08/12/2023	6:00am	95	20	145/75	75	36.9
	10:00am	97	20	130/80	80	36.1
	2:00pm	97	20	117/77	85	37.1
	6:00pm	96	19	158/87	84	36.7
	10:00pm	97	19	113/66	52	35.7
09/12/2023	6:00am	98	20	107/60	72	36.5
	10:00am	95	19	108/62	74	36.4
	2:00pm	96	20	118/78	86	36.1
	6:00pm	97	23	119/64	68	36.6
	10:00pm	94	24	107/60	58	36.8
10/12/2023	6:00am	94	21	123/54	61	34.8
	10:00am	97	23	128/72	98	36.2
	2:00pm	99	21	120/80	76	36.5
	6:00pm	97	22	120/60	69	36.9
	10:00pm	95	21	110/70	78	36.4
11/12/2023	6:00am	98	24	110/70	84	36.2

Table 9: Intake and Output chart for Mr. T. R. on 07/12/2022 and 08/12/2022

Intake			**Output**		
Date/Time	**Kind of IV Fluid**	**Amount of Fluid**	**Date/Time**	**Kind of Fluid**	**Amount of Fluid**
07/12/2022 @ 6:00pm	Dextrose 5%	500mls	_	_	_
07/12/2022 @ 8:00pm	Ringers Lactate	500mls	_	_	_
08/12/2022 @ 12:00am	Dextrose 5%	500mls	08/12/2022 @ 12:15am	Urine passed	600mls
08/12/2022 @ 10:15am	Dextrose 5%	500mls	_	_	_
08/12/2022 @ 12:30pm	Ringers Lactate	500mls	08/12/2022 @ 01:00pm	Urine passed	900mls
08/12/2022 @ 05:15pm	Dextrose 5%	500mls	08/12/2022 @ 06:00pm	Urine passed	400mls
08/12/2022 @ 6:00pm	**Total Intake**	3000mls	08/12/2022 @ 06:00pm	**Total Output**	1900mls

Over first 24 hours

Balance = Total Intake – Total Output

Balance = 3000mls – 1900mls

Balance = 1100mls

Comparing the intake and output of Mr. T. R., the urine output is in the normal range (800mls – 2000mls). Therefore, the kidneys are functioning well because there were no sings of dehydration or fluid overload.

Table 10: Intake and Output chart for Mr. T. R. on 08/12/2022 and 09/12/2022

Intake			**Output**		
Date/Time	**Kind of IV Fluid**	**Amount of Fluid**	**Date/Time**	**Kind of Fluid**	**Amount of Fluid**
08/12/2022 @ 07:45pm	Ringers Lactate	500mls	_	_	_
08/12/2022 @ 09:45pm	Dextrose 5%	500mls	_	_	_
09/12/2022 @ 12:00am	Dextrose 5%	500mls	09/12/2022 @ 12:00am	Urine passed	400mls
09/12/2022 @ 05:30am	Ringers Lactate	500mls	09/12/2022 @ 06:00am	Urine passed	300mls
09/12/2022 @ 06:00am	**Total Intake**	2000mls	09/12/2022 @ 06:00am	**Total Output**	700mls

Balance = Total Intake – Total Output

Balance = 2000mls – 700mls

Balance = 1300mls

Comparing the intake and output of Mr. T. R., the urine output is in the normal range (800mls – 2000mls). Therefore, the kidneys are functioning well because there were no sings of dehydration or fluid overload.

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Others

Patient's Folder: AAH3311

SIGNATORIES

THE STUDENT NURSE

NAME: OWUSU JUSTICE ACHEAMPONG

SIGNATURE:

DATE: 12/07/2023

THE NURSE-IN-CHARGE OF SURGICAL WARD (HOLY FAMILY HOSPITAL, BEREKUM)

NAME: GRACE YEBOAA

SIGNATURE:

DATE: 12/07/2023

THE SUPERVISOR, NURSING AND MIDWIFERY TRAINING COLLEGE, BEREKUM

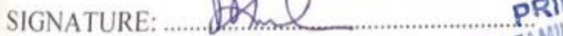
NAME: SAMUEL OSAFO ASARE

SIGNATURE:

DATE: 12-07-2023

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

NAME: MONICA NKRUMAH

SIGNATURE: 

DATE: 17/07/23

PRINCIPAL
HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE
BEREKUM