

## Original Research Article Outline:

**NURSING CARE FOR HYPEREMESIS GRAVIDARUM CLIENTS  
WITH A STUDY FOCUS ON THE MANAGEMENT OF  
NUTRITIONAL IMBALANCE**Kamariah<sup>1)\*</sup>, Eileen Savage<sup>2)</sup><sup>1)</sup>Nursing Study Program , Audi Indonesia University, Indonesia<sup>2)</sup>University College Cork, Ireland\*Corresponding Author, E-mail: [kamariah@gmail.com](mailto:kamariah@gmail.com)**ABSTRACT**

**Introduction:** Hyperemesis gravidarum is a condition where sufferers experience excessive nausea and vomiting, more than 10 times in 24 hours, thus disrupting their health and daily work. One of the complications that occurs in hyperemesis gravidarum is nutritional imbalance less than the body's needs . Therefore, it is important to manage Hyperemesis Gravidarum by changing the pattern nutrition. The author aims to discuss and examine the application of nursing care with a focus on studying nutritional imbalances less than body requirements in clients with hyperemesis gravidarum. **Methods:** The method used is a descriptive method, namely describing managed cases systematically. **Results & Analysis:** The results of the research were obtained during 3x24 hour nursing care, the problem of nutritional needs for clients with hyperemesis gravidarum could be resolved in accordance with the established criteria with the results of the implementation carried out having a response that showed the client's development. **Discussion:** nutritional needs for clients with hyperemesis gravidarum are very important, therefore it is hoped that nurses or hospitals can pay more attention to the patient's nutritional status according to needs and improve counseling services for pregnant women to prevent this incident.

**Keyword: Hyperemesis Gravidarum, Care, Nutritional Status****INTRODUCTION**

Pregnancy is a process that will cause physical, mental ,and social changes which are influenced by several physical, psychological, environmental, socio-cultural and economic factors. During pregnancy, various complications or problems can occur, such as nausea and vomiting which are often experienced by pregnant women, which are one of the earliest symptoms of pregnancy (Tira, 2009).

The first trimester is often considered an adjustment period, from this adjustment the mother will experience common discomforts, namely feeling headaches and dizziness, feeling tired quickly, frequent urination, vaginal discharge, bloating, shortness of breath, stomach cramps, and this includes hyperemesis gravidarum (Rukiah, 2013).

Hyperemesis gravidarum is a condition of severe nausea and vomiting in pregnancy that is difficult to control. In each pregnancy there are physiological

changes that affect nutritional needs during pregnancy, disturbances in acid-base electrolyte balance and nutritional deficiencies in pregnant women cause reduced nutritional and oxygen intake in the fetus (J Indon Med, in Ocviyanti, 2011).

Nauseous vomiting in pregnancy usually called morning sickness. Nauseous vomit is symptom the usual start nature light but if condition This Keep going take care of every time you eat and drink as a result body Mother the more weak , pale , because No exists intake nutrition and fluids so that can endanger health mother and fetus . ( Hidayati , 2009 in Rahmalia 2009).

Nutritional status Mother pregnant on time growth and during pregnant can influence growth and development fetus , mother 's weight pregnant must adequate , weight gain in accordance age pregnancy , due to The mother 's weight will be normal produce a healthy and normal baby too, because That nutrition is really needed For Mother pregnant especially those who experience it nauseous very heavy vomiting that is hyperemesis gravidarum (Wahyuni, 2014).

Imbalance nutrition not enough from need body is intake nutrition No Enough For fulfil metabolic needs . (NANDA 2015-2017). Nutrition works For form and maintain network body , regulates internal processes body , as source power , as well as For protect body from attack disease . Nutrients is kind substance chemistry organic or inorganics present in food and needed by the body For operate its function . Adequate food intake consists of six essential nutrients (nutrient groups) in balance. The six essential nutrients include water, carbohydrates, protein, fat, vitamins and minerals (Mubarak, 2008).

According to *World Health Organization* (WHO) total incident hyperemesis gravidarum reaches 12.5% of amount all over pregnancy in the

world. Based on results research in Indonesia obtained maternal data with hyperemesis gravidarum reached 14.8% of all over pregnancy . Complaint nauseous vomit occurs in 60%-80% of primigravidas and 40%-60% of multigravidas.

mortality rate (MMR) in Indonesia is still high , even amount Indonesian woman who died moment give birth to reach record highest in Asia. Based on Survey Indonesian Health Demography (SDKI) 2012 , figures Maternal deaths in Indonesia reached 359/100,000 births live is means every 100,000 live births Still There is around 359 mothers died consequence complications pregnancy and childbirth .

The cause of hyperemesis gravidarum is not known for certain. There is no evidence that the disease is caused by toxic factors, nor are any biochemical abnormalities found. Anatomical changes in the brain, heart, liver and nervous system are caused by deficiencies in vitamins and other substances due to inanition (Khumaira, 2012).

According to Khumaira (2012) there are predisposing factors, increased estrogen and HCG, primigravida, organic factors, psychological factors, and endocrine factors. Continuous vomiting without treatment can cause chronic weight loss to increase.

Based on the events above, the author is interested in discussing nursing care for Mrs. E with priority problems of basic needs, disruption of nutritional fulfillment less than body needs with hyperemesis gravidarum at PKU Muhammadiyah Temanggung.

## METHOD AND ANALYSIS

The method used is a descriptive method, namely fact-finding and appropriate interpretation, to describe managed cases more accurately and systematically.

The techniques used in the research were interviews, observation, physical examination and accompanied by supporting data using a nursing care format. .

The research location is in the Muzdhalifah Room, PKU Muhammadiyah Hospital. The subject in this research was Mrs E aged 27 years. The research time was taken in January 2018.

## RESULTS

Assessment is a nursing process at an early stage. The assessment is carried out through interviews and physical examinations, this assessment requires accuracy in order to obtain accurate results to determine the nursing problems experienced by the patient and the implementation required by the patient (Mitayani, 2009).

Based on an assessment dated January 2 2018, data was obtained on a client named Mrs. E 27 years old, address Gemawang, Temanggung. The client came to the PKU Muhammadiyah Temanggung Hospital on January 2 at 10.20 WIB with a medical diagnosis of Hyperemesis Gravidarum.

When the assessment was carried out, the results showed that the client's main complaint was nausea and vomiting. Current health history Mrs. E is currently in her third pregnancy at 12 weeks' gestation. The client said he was immediately taken to the hospital when the client complained of nausea and vomiting more than 10 times and the client's appetite began to decrease at home. Then the client was hospitalized in the Muzdalifah ward because the client's condition was getting weaker.

The client's previous medical history was hospitalized with a history of the same disease in a previous pregnancy. When assessing the family history of illness, the client said that none of the client's family had a history of the disease

the client is experiencing now, and had no history of other contagious or inherited diseases. In the menstrual history, data was obtained on the client's menarche, aged 14 years, menstrual cycle 28 days, 7-8 days long, the client complained of menstrual pain (dysmenorrhea) on the first day of menstruation.

Gordon's functional health pattern was obtained: nutrition at home before being sick, the client said that in the first month of pregnancy the client's diet was regular. The client eats 3 times a day (rice, vegetables, side dishes and fruit snacks) drinks  $\pm 9$  glasses of 1800 cc and the client experiences nausea naturally. The client's nutritional pattern in the second month of pregnancy stated that the client's eating pattern was disturbed by nausea and even vomiting when the client ate or drank. There is no appetite. The client eats 3 times a day in portions given by the hospital, one meal is only 3 tablespoons and is sometimes accompanied by nausea and vomiting.

The results of the physical examination obtained from the client Mrs. E is composmentis awareness, the client's general condition appears weak and weak, vital signs: Blood pressure: 100/70 mmHg, pulse: 80 times/minute, temperature: 36.6 ° C, respiration: 20 times/minute. The client's height is 153 cm, weight is 52 kg from the previous 55 kg. The rest of the client's physical examination is normal for the client's eyes are symmetrical right and left, anemic conjunctiva, ichtric sclera and examination of the patient's mouth, the gums are not bleeding, the teeth are clean, the lips are pale, the lip mucosa is dry.

Supporting data can be obtained from laboratory results, namely blood and urine tests. Blood tests include hemoglobin and hematocrit values which show increased hemoconcentration related to dehydration, low urine tests and high concentrations due to dehydration

and also acetone in the urine (Kemara Putra, 2011). For the results of the client's laboratory examination, the results showed that the number of erythrocytes was 4.56 million/ $\mu$ L, leukocytes were 7.9 thousand/ $\mu$ L, hematocrit was 34.2%, hemoglobin was 11.8 gr/dL, platelet count was 210 thousand/ $\mu$ L, lymphocyte count was 16, 2%, MCV 75.1 fl, MCH 26.4 pg, MCHC 35.1 g/dL.

Based on data from the study, focus data was obtained to determine the results of data analysis on January 2 2018, which consisted of subjective data, namely the client said there was no appetite, nausea and vomiting every time he ate, then objective data was obtained, the client looked weak, blood pressure : 100/70 mmHg, Pulse : 80 times/minute, Temperature : 36.6 ° C, Respiration : 20 times/minute. A: BB: 52 kg, TB: 153 cm, BMI: 22.22 B: Hematocrit 34.2% C: anemic conjunctiva, dry lip mucosa.

## DISCUSSION

Nursing diagnosis is a statement that explains the human response (health status or risk of changing patterns) of an individual or group where accountable care can identify and provide definite interventions to maintain health status, reduce, limit, prevent and change (Carpenito, 2000 in Runiari, 2010). Based on the results of the data analysis above, the author took nursing problems based on NANDA 2015-2017 with a nursing diagnosis of nutritional imbalance less than body requirements related to inability to digest food (excessive vomiting). Nutritional imbalance less than body requirements is nutritional intake that is not sufficient to meet metabolic needs. (NANDA 2015-2017).

A nursing plan is a handwritten document that contains how to solve problems, goals and interventions (Runiari, 2010). The nursing action plan for diagnosing nutritional imbalances is

less than the body's needs with the aim that after carrying out nursing actions 3x24 hours, it is hoped that the patient will be able to increase nutrients to fulfill metabolic needs with the expected result criteria being the first to show weight gain. Both clients' food intake is met. The three clients did not experience signs of malnutrition in the mother and fetus. Nursing intervention, the first is to monitor vital signs. Second, perform or provide oral care before and after eating with the aim of reducing discomfort associated with nausea and vomiting. Third, advise the client to eat little but often and to increase special nutrients (protein, carbohydrates, fat and calories) according to the patient's needs and choice of spices in the hope that the client's nutritional intake can be met. Fourth give drugs before and after Eat . (Nursing Interventions Classification)

Implementation is initiative from plan action For reach specific goals ( Nursalam , 2001 in Runiari , 2010). In management action nursing , nurse can direct give service to mother below ongoing supervision professional with nurses ( Mitayani , 2009).

Implementation nursing done on the day First January 2 2018 at 15.00 WIB, do observation circumstances general client , subjective data is obtained client say Still weakness , dizziness , nausea and vomiting  $\pm$  3 times. Objective data: The client looks limp, pale, dry lip mucosa, BP: 100/70 mmHg, Pulse: 80 times/minute, Temperature: 36 ° C, RR: 20 times/minute. At 15.30 WIB advised the client to eat little by little but often, subjective data the client said he had no appetite and felt nauseous. Objective data the client ate only 2 tablespoons, drank 3 glasses of water and warm tea  $\pm$  200 cc. At 16.00 WIB an infusion of RL 20tpm was given and an injection of ranitidine 25mg/8 hours was given.

Implementation of nursing on the second day, January 3 at 08.15 WIB, observing the patient's condition, the

client's subjective data said he was still nauseous, vomited 1-2 times and had a headache, when the client had breakfast the client said he had started to have an appetite, objective data BP: 110/70 mmHg, pulse: 78 times/minute, temperature 36.7 ° C, RR: 20 times/minute, finished a quarter of the food given by the hospital and drank 4 glasses of water and the client was given oral mediamer 40mg 3x1 after eating.

The third day of implementation, on January 4 2018 at 08.20 WIB, subjective data obtained by the client said that the client was still weak but the dizziness had disappeared, nausea sometimes occurred, the client's appetite had increased, the client avoided eating foods that smelled fishy, with objective data TD: 100/ 80 mmHg, Pulse: 84 times/minute, Temperature 36.4 ° C, RR: 20 times/minute and the client consumed more than half a portion of the food provided by the hospital, drinking 5 glasses of water and 400 cc of hot tea.

Evaluation is an intellectual action to complete the nursing process which indicates the extent of the nursing diagnosis, action plan, and implementation. Through evaluation, it allows the nurse to monitor during the assessment, analysis, planning and implementation stages. Even though the evaluation stage is placed at the very end of the evaluation, it is a very important part, it is necessary to evaluate the diagnosis in terms of accuracy and completeness, as well as whether the objectives, interventions and implementation have been achieved effectively. There are several things that must be evaluated for hyperemesis gravidarum according to (Runiari, 2010) which are in accordance with the signs and symptoms in the case, namely skin turgor, mucous membranes, increased body weight, increased nutritional intake, cleanliness of the oral mucous membranes, and laboratory examinations.

Evaluation on January 2 2018 at 19.00 WIB, the client said he was still weak, dizzy, nauseous and vomiting +3 times objective data, the client looked weak, pale, dry lip mucosa, BP: 100/70 mmHg, Pulse: 80 times/minute, Temperature: 36 ° C ,RR: 20 times/minute. In general, the problem of the body's insufficient nutritional needs has not been resolved, then continue the nursing plan for the second day to meet the results criteria and help improve nutrition.

Evaluation on January 3 2018 13.00 WIB in general, evaluation on the second day, the client's subjective data said he was still nauseous, vomited 1-2 times and dizzy, when the client had breakfast the client said his appetite had started to appear, objective data BP: 110/70 mmHg, Pulse: 78 times/minute, temperature 36.7 ° C, RR: 20 times/minute, finished a quarter of the food given at the hospital and drank 4 glasses of water and the client was given oral mediamer 40 mg 3x1 after eating. In general, the problem of less nutritional requirements from the body is partially resolved, further action to continue the intervention helps to improve the client's nutrition and fluid balance.

Evaluation on the third day January 4 2018 13.00 WIB. The client's subjective data said he was still weak but, the dizziness had disappeared, the nausea sometimes, the client's appetite had improved, the subjective data obtained by the client said he was still weak but the dizziness had disappeared, nausea sometimes, appetite The client has improved, the client avoids eating foods that smell fishy, with objective data BP: 100/80 mmHg, pulse: 84 times/minute, temperature 36.4 ° C, RR: 20 times/minute and the client spends more than half the portion. The food provided by the hospital is drinking 5 glasses of water and 400 cc of hot tea. In general, after 3 x 24 hours of action, the client's weight can increase by 53 kg. The

problem of the body's nutritional needs can be resolved according to the results criteria and nursing plan that has been decided. Next, maximize and continue to observe nutritional improvements.

### CONCLUSION

The results of the study revealed nursing problems for Mrs. E is a nutritional imbalance that is less than the body's needs related to the inability to digest food (excessive vomiting). Furthermore, in overcoming the problem of nutritional imbalances that are less than the body's needs, this is done by formulating criteria for rational results that can be achieved within 3x24 hours. There are 4 interventions that must be implemented to increase adequate nutrition for clients.

According to research (Kemara, 2011), modify the diet by providing food in small portions but frequently, high in carbohydrates, low in protein and fat and avoiding foods that smell.

Evaluation of the results and response after 3x24 hours of action, the problem of nutritional imbalance less than the body's needs can be resolved according to the established results criteria.

### SUGGESTIONS

In providing nursing care to clients with hyperemesis gravidarum, managing nutritional needs in overcoming the problem of nutritional imbalance in clients is not enough to only do it for three days, it is necessary to have a follow-up plan by paying attention to time in meeting the appropriate nutritional status.

In providing increased nutritional status to clients with hyperemesis gravidarum at home, both the family and the client can implement nursing care according to what the nurse has provided while in hospital by paying attention to the

appropriate nutritional status for the client.

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