# POST PARTUM MIDWIFERY CARE ON DAY 4 OF MRS "N" WITH PREMATURE RUPTURE OF MEMBRANES AT BATARAGURU HEALTH CENTER

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## ABSTRACT

Background: The term "premature rupture of the membranes" (PROM) refers to the rupture of the amniotic membranes before to the moment of delivery, membrane rupture in primiparas < 3 cm and in multiparas < 5 cm prior to delivery or opening. Both term and preterm pregnancies may experience this. In addition to increasing morbidity and death, premature membrane rupture can infect both the mother and the unborn child. **Objective**: This study aims to provide midwifery care to women giving birth with premature rupture of membranes at the Bataraguru Community Health Center, Baubau City using documentation of Varney's 7 steps and SOAP. Subject: The subject of this research was 1 person, namely mother N who experienced premature rupture of membranwes ((KPD). Methods: This type of research is case study report research, using Varney's 7-step midwifery approach and the SOAP documentation method. Results: Evaluation of The mother was given a 500 ml Ringer's lactate infusion to replace body fluids lost during labor, administered oxytocin 5 UI 20 drops per minute to speed up and strengthen contractions, as well as monitoring and care from stage I to stage IV. Conclusions: Intranatal midwifery care for Mrs "N" with premature rupture of membranes was carried out according to midwifery service standards.

### INTRODUCTION

Childbirth is the process of creating and evaluating services and the fetus descending along the birth canal, followed by the expulsion of the fetus from the mother's body through the birth canal or birth opening, with the help or strength of the mother herself (Annisa dkk, 2017).

Premature rupture of membranes is one of the factors that contributes to improving maternal and perinatal health and well-being which can be caused by infection; namely when the cause of the disease no longer exists so that the mother and child can seek treatment (Wilda dan Suparji, 2020). During pregnancy, pregnant women experience physical and psychological changes, including increased levels of anxiety before giving birth, especially in the third trimester (Sutrisna Altahira, 2022).

According to the 2017 Indonesian Demographic Health Survey (SDKI) report, the Maternal Mortality Rate (MMR) in Indonesia is 228 per 100,000 living population, while the Neonatal Mortality Rate (AKN) is 15 per 1,000 living population (Kemenkes RI, 2018). Causes of maternal death include infection, preeclampsia, bleeding, amniotic air embolism, anesthesia trauma, and other diseases, as well as problems with pregnancy, childbirth, and postpartum. The majority of infections acquired from mothers are caused by complications or diseases such as fever, chorioamnionitis, or urinary tract infections, and around 65% of them are caused by PROM, which often causes infections in mothers and babies (Kemenkes RI, 2019).

In Southeast Sulawesi, in 2021, 3.12% of mothers experienced KPD (Southeast Sulawesi Provincial Health Service, 2021) while in Baubau City in 2022, this figure increased to 6.79% (Dinas Kesehatan Kota Baubau, 2022). In the Bataraguru Community Health Center, Baubau City, in the same year 8.49%, around mothers with premature rupture of membranes (Puskesmas Bataraguru Kota Baubau, 2022). During comprehensive practice at Bataraguru Community Health Center, researchers found ten pregnant women, but only one case was selected for research.

Premature rupture of membranes is divided into two categories, namely premature rupture of membranes which is defined as premature rupture before the age of 37 years. Premature Rupture of

Membranes occurs more than 12 hours before the time of birth. Premature Rupture of Membranes is a complex condition associated with pregnancies that are approximately one month old and has a significant impact on perinatal mortality rates in babies approximately one month old. The aim of administering Premature Rupture of Membranes in pregnancies of less than 34 weeks is to reduce the risk of premature birth and NRDS (neonatal distress syndrome), namely respiratory problems in newborns caused by incompletely developed half lungs (Rahayu, 2018).

The impact of premature rupture of membranes on the mother and fetus includes the possibility of intrapartum infection/in labor, puerpal infection/postpartum mas, dry labor, prolonged labor, postpartum hemorrhage, increased obstetric surgery (especially CS), morbidity and mortality. Prematurity (respiratory distress syndrome, hypothermia, feeding problems in neonates, intracranial bleeding, kidney failure, respiratory distress) is one of the potential problems that can occur in the fetus. Perinatal morbidity and mortality, as well as oligahydramnios (fetal defornits syndrome, pulmonary hypolapsia, extremity deformities, and fetal growth restriction) (Marni dkk, 2016: 105-106). According to data from the Bataraguru Community Health Center, Baubau City, 8.49% of children in 2022 will experience premature rupture. Based on the information above, the author is interested in conducting research with the title "Intra Natal Care Midwifery Care for Mrs. 'N' with Premature Rupture of Membranes."

## **METHODOLOGY**

The method used in writing this final assignment report is a case study. approach used as a means of midwifery management. Midwifery management is a problem solving process used as a method to organize ideas and suggestions based on science, findings, and skills theory in a logical way to address specific client concerns. The method of researching a particular object by studying it as a case study is called a case study. The type of document writing that the author uses is called SOAP. This technique helps explain a case or event based on a theory that is based on observable facts.

Subjective Data describes documents that can be obtained from the results of Mrs.N's research, analysis or through interviews. Objective Data describes documentation obtained from the results of the client's physical examination, which is used as primary data to assess the quality of the institution. An analysis describes a certain identification based on the subjective and objective facts obtained. Management describes the documentation of actions that will be carried out now and in the future. The location of this research is the Bataraguru Community Health Center, Baubau City, 22 February – 27 March 2024. The subject of this research is NY "N" Intra Natal Care with Premature Rupture of Membranes. Data collection was carried out through interviews using a structured interview guide designed based on Varney's 7 steps to obtain subjective information from the mother, as well as through direct observation to obtain objective data about the mother's physical and clinical condition.

# **RESULTS & DISCUSSION Subjective Data**

On February 12, at 01.30 WITA. Data collection (subjective data) on the identity of the patient's wife/husband, Mrs. "N" and her husband Mr. "S", both 28 years old, have been married for  $\pm$  10 years and adhere to Islam. Mrs. "N" comes from the Butonese tribe with a junior high school education, while Mr. "S" comes from the Butonese tribe with a bachelor's degree. Mrs. "N" works as a Housewife and Mr. "S" works as an entrepreneur. They live in Tomba.

The patient's main complaint was penetrating pain in the back accompanied by the release of mucus and water since 01.00 WITA. This pregnancy is the first pregnancy and has never had a miscarriage (GI P0). Mrs. "N" indicates that he has never suffered from infectious diseases such as HIV, syphilis, HBsAg, or AIDS, no history of hereditary diseases such as asthma or Diabetes Mellitus, and no history of chronic diseases such as heart disease, hypertension, or tuberculosis. In her reproductive history, Mrs. "N" experienced menarche at the age of 14 years with a menstrual cycle of 28 days and a duration of 7 days, without dysmenorrhea or other complaints. First pregnancy, mother has never used birth control.

## **Objective Data**

The patient has good consciousness and a healthy general condition. Blood pressure is 120/80 mmHg, pulse 81 times per minute, respiration 20 times per minute, body temperature 36.5°C. The patient has a height of 160 cm, weight before pregnancy 63 kg, and current weight after pregnancy

69.3 kg. Upper arm circumference (LILA) is 28 cm. The patient's head and hair are clean without hypersensitivity or hair loss. Facial expressions show signs of his. There was no edema or swelling of the face. Both eye conjunctivae were normal without polyps or discharge. The nose is symmetrical on both sides without polyps. The ears are also symmetrical and there is no discharge. The mouth and teeth are clean, the lips are moist, and there is no caries on the teeth. There is no enlargement of the thyroid gland, lymph nodes, or jugular veins in the neck. Breast examination shows symmetry on both sides with prominent nipples and no tenderness. Abdominal examination showed a uterine fundus (TFU) height of 30 cm, 3 fingers below the xiphoid process. Based on 38 weeks of gestation, the fundus (head) feels firm, round and bouncy. The fetus is in the left dorsal position, breech presentation, and elongated position. The lowest point of the fetus has dropped 3/5 from the pelvis down (BDP). The fetal heart rate was heard at a frequency of 141 beats per minute during auscultation. One live fetus is still in the womb.

On February 12 at 01.30 WITA, the results of the initial internal examination showed that the vulva and vagina were normal. There is 4 cm dilation, the portio is soft, and the amniotic fluid is still in place. There is no molasses or swelling, Hodge II reduction, and typical pelvic impression.

No abnormalities were found in the vulva or vagina during the second internal examination carried out on February 12 at 02.30 WITA. With 7 openings. The amniotic fluid is clear and cracked. Head presentation, normal pelvic image, descending to Hodge III, no molasses or bulging gestational age 38 weeks, head presentation. The lowest point of the fetus has fallen 3/5 of the Pelvis Down (BDP). The fetal heartbeat is heard at a frequency of 140 beats per minute during auscultation. One live fetus is still in the womb. On February 12 at 01.30 WITA, the results of the initial internal examination showed that the vulva and vagina were normal. There is 4 cm dilation, soft portion, and amniotic fluid is still present, cephalic presentation. There is no molasses drip or swelling, Hodge II reduction, and typical pelvic impression. No abnormalities were found in the vulva or vagina during the second internal examination carried out on February 12 at 04.30 WITA. With an opening of 10 cm, the amniotic fluid breaks out. Head presentation, normal pelvic condition, down to Hodge III, no molasses.

## **Analysis**

Mrs. N aged 28 years G1P0A0 38 weeks pregnant with Premature Rupture of Membranes.

# Management

Initial treatment for Premature Rupture of Membranes is given to the mother by using a 500 ml RL infusion, emptying the bladder, observing vital signs every four hours, and observing the fetal heart rate (FHR) every thirty minutes. It is recommended that the mother lie on her left side to help the fetus' head descend, use relaxation and breathing techniques to reduce pain, and provide nutritional intake to help the fetus' metabolism. Make sure that you have all the essential equipment and medications necessary for a second-hand delivery; use one hand to protect the perineum with a cloth folded 1/3 under the mother's buttocks; the other hand presses the baby's head to prevent excessive infection; check whether there is a twist in the umbilical cord; wait for the baby to make an external rotation; hold the baby biparietally, deliver the front shoulder and the back shoulder; and remove the baby with a cloth folded 1/3, Inject 10 UI oxytocin in 1/3 of the anterolateral thigh IM. Cut the umbilical cord between the two clamps, protect the baby from scissors and clamps, and clamp the umbilical cord using sterile umbilical cord clips. To maintain skin contact between mother and baby, place the baby on the mother's stomach. Cover mother and baby with a clean, dry cloth or cover, and wear a baby hat to prevent hypothermia.

Table 1. His and DJJ observations

O'clock	TD	N	S	P	DJJ	HIS	VT
Wita	(Mmhg)	( x/i )	C	( x/i )	( x/i )	Frequency	
01:30	120/80	81	36,5	20	141	4x10 40-45	4
02:00	120/80	81	36,5	20	141	4x10 40-45	4
03:30	120/80	81	36,5	20	141	4x10 40-45	7
04:30	120/80	81	36,5	20	143	5x10 50-55	10

Source: Primary Data, 2024

## **DISCUSSION**

## **Subjective Data**

Mrs. N monitored the progress of labor, where she came on February 12 2024 with HPHT on May 4 2023. She complained of pain in the lower abdomen that radiated to the waist, accompanied by mucus and blood discharge. The pain felt is unstable and becomes more intense over time, while fetal movements become stronger during pregnancy. One of the common discomforts experienced by pregnant women in the third trimester is abdominal pain that reaches the back, caused by hormones such as estrogen and progesterone which relax joints, bones and muscles. Jannah, (2018)stated that the common complaint of pregnant women before giving birth begins with contractions which are influenced by hormones. Mucus mixed with blood appears because blood vessels burst when the cervix begins to open, while discharge is caused by rupture of the cervical membrane before complete opening.

This is the first time the mother has experienced the process of giving birth. During labor and the postpartum period, Mrs. A has never experienced difficulties and trauma. According to Evariany in Yusdiana, (2018) who states that mothers who give birth spontaneously more often experience stress after giving birth because this birth is not planned and is not ready physically and psychologically. This causes anxiety and instability of emotions or feelings.

# **Objective Data**

The results of vital signs include a body temperature of 36.5°C, pulse 81 times per minute, breathing 20 times per minute, and blood pressure 120/80 mmHg. Checking vital signs is very important both in the ward and in the emergency unit (IGD). Finding patients who are in danger of getting worse is much easier with this assessment. Thus, the importance of vital signs monitoring in clinical practice (Pratiwi et al., 2023).

Physical examination of the patient includes a clean head and hair, no swelling on the face, there is a pink color on the conjunctiva and no yellowing of the sclera. There is nothing coming out or like polyps in the nose, the ears are free from secretions, the lips are moist, and the mouth and teeth are clean without any caries. Hypertrophy of the thyroid gland, lymph nodes, and jugular veins was absent. The nipples are visible, the breasts are clean, and there is no pain when pressed. visible scars from previous surgery on the stomach. A physical examination of the mother in labor should include a facial examination to ensure there is no edema, pink conjunctiva, or white sclera. Lips look moist, breasts are clean with prominent nipples and have released colostrum, without any swelling or abnormal masses (Jannah, 2018).

Abdominal examination includes measuring the height of the uterine fundus (TFU), Leopold's palpation (I, II, III, IV), and checking the fetal heart rate (FHR) which is normal at a frequency of 150 beats per minute. Palpable gluteal fundus, left dorsal presentation, radial presentation, and uterine fundal height (TFU) of 28 cm were observed during abdominal examination. Auscultation showed a fetal heartbeat of 150 beats per minute. The fetal heartbeat (DJJ), according to Solaikah, is a sign of life in the mother's womb during a gynecological examination. The baby's heartbeat can only be seen at around 11 weeks of age, and doctors carry out several examinations to assess the health of the fetus in the pregnant patient's womb (Fajrin et al., 2021). The genital area appears clean with no signs of edema, varicose veins, infection, or enlarged Bartholin's glands. The upper and lower extremities were also free from swelling.

During Mrs. N's initial examination on February 12 2024 at 01.30 WITA, water discharge was found through the birth canal, head presentation, Hodge II descent, soft portion, and normal vulva and vagina, then blood and mucus were removed. In the second examination carried out at 03.30 WITA, Mrs N's vulva and vagina were found to be normal, the inside of the vagina was narrow with a hole measuring 10 cm. All the membranes have broken and the amniotic fluid is clear. The first stage begins with uterine contractions and the cervix opening until it reaches a complete dilation of 10 cm (Jannah, 2018).

Premature rupture of membranes is a condition where the amniotic membranes rupture before delivery. Rupture of amniotic membranes is related to changes in biochemical processes that occur in the extracellular matrix collagen of the amnion, chorion, and fetal membrane apoptosis (Jannah, 2018). Premature rupture of membranes is the terminology used to describe spontaneous rupture of fetal membranes before the onset of labor (premature) and before term (preterm) (Leveno, 2015).

### **Analysis**

This case analysis is based on the subjective and objective information collected. Mrs. N had just experienced labor for the first time. The first day of the last menstrual period (HPHT) was recorded on May 4 2023. Complaints included pain in the lower abdomen that spread to the waist, accompanied by mucus mixed with blood. Physical examination showed that the condition of the scalp and hair was normal, without edema on the face, the conjunctiva was red but without jaundice on the sclera, there were no polyps or discharge in the nose, the ears were clean of secretions, the lip mucosa was moist, there was no swelling of the thyroid gland, lymph nodes , or jugular vein, and the mouth and teeth are free of cavities. Her nipples were clearly visible and her breasts seemed insensitive. After examining the abdomen, surgical scars were found.

The results of an abdominal examination showed that the uterine fundus measured 30 cm and was located three fingers below the xiphoid process, felt round and hard on the head, the gestational age of the fetus was 38 weeks, the fetus had a back on the left side, was located head down, was elongated, and moved inside pelvis, with the lower part dropped three-fifths. Single fetus. If the enlargement of the fetus's abdomen corresponds to gestational age, then the pregnancy is considered single. Palpation shows one head and one back, and auscultation shows a clear, regular, and strong fetal heartbeat in the left lower quadrant of the mother's abdomen (Rika et al., 2021).

The heartbeat of a live fetus was heard during auscultation at a frequency of 141 beats per minute. The heartbeat occurs between 120 and 160 times per minute and is regular in a healthy fetus. Apart from that, fetal movements that the mother feels strongly once an hour or more than ten times a day and enlargement of the uterus which shows that the fetus is still alive and growing are other indicators of a living fetus (Rika et al., 2021). Thus, it can be concluded that Mrs. N is 28 years old, just gave birth for the first time.

# Management

Based on evaluation of subjective and objective facts and analysis that has been carried out. For this reason, collaboration with obstetricians is very necessary in treating patients or carrying out tasks according to the SOPs set by the health facility. The mother is given initial care for Premature Rupture of Membranes with the following steps: installing a 500ml RL infusion, emptying the bladder, monitoring vital signs every 4 hours, monitoring the fetal heart rate (FHR) every 30 minutes, advising the mother to lie on her side. left to facilitate descent of the fetal head, using relaxation and breathing techniques to reduce pain inhale through the nose and exhale through the mouth to practice relaxation and breathing methods during contractions. Based on research conducted by Pratiwi, this technique has been proven to reduce the intensity of pain during labor and reduce the risk of excessive errors after delivery. Relaxation during the birthing process helps maintain the balance of the sympathetic nervous system, controls excessive blood supply, reduces levels of anxiety and fear, and helps mothers deal with pain during the process. and Look for signs and symptoms of the second stage. Make sure you have the equipment and essential medicines to help with childbirth with both hands. Protect the perineum with one hand covered with a cloth folded 1/3 under the mother's buttocks. The other hand presses the baby's head so that it doesn't happen. Excessive infection on the baby's head, Check for entanglement of the umbilical cord, Wait for the baby to make an external rotation, Hold it biparietally, deliver the front shoulder and back shoulder, Deliver the baby's body by supporting the head, arm and lower elbow, After the shoulder and arm birth, upper hand strokes the back, buttocks, legs and feet, if the baby has been born Check the uterus again, Tell the mother that she will be injected with 10 UI oxytocin, Inject 10 UI oxytocin into 1/3 of the antero lateral thigh IM, Clamp the umbilical cord with clamp the umbilical cord approximately 2-3 cm from the base of the umbilicus and the second clamp 2 cm from the first clamp. Cut the umbilical cord between the two clamps, protect the baby from scissors and clamps then clamp the umbilical cord using sterile umbilical cord clips. Place the baby on the stomach. mother so that there is skin contact between mother and baby. Cover mother and baby with a clean and dry cloth or sarong and wear a baby hat to prevent hypothermia.

The technique of lying on the mother's left side aims to reduce pressure on the inferior vena cava due to the enlarged uterus, so that blood flow from the mother to the fetus remains smooth and helps lower the fetal head. According to research conducted by Darwis, this position functions to improve the mother's blood circulation, ensuring adequate oxygen supply to the fetus through the placenta without excessive interference. The process of opening the cervix can occur gradually,

providing relative comfort during labor, and can speed up the descent of the fetal head and help facilitate the second stage process (Darwis & Octa Dwienda Ristica, 2022).

Multi- or grandemultipara, overdistension (such as hydramnios or multiple pregnancies), pelvic disproportion, and positional abnormalities (such as breech and latitude) are some of the common causes of labor with premature rupture of membranes (Izzah Dan Malihah, 2018).

Premature rupture of membranes (KPD) is influenced by several factors, including gestational age, parity, maternal age, and occupation. Gestational age is 280 days, or 40 weeks, or 9 months 7 days, after the mother's last menstruation (Ayu dkk, 2019).

According to Sunarni in Marni, (2016) (Complications of PROM in the mother and fetus include intrapartum infections during labor, puerperal infections/postpartum period, wet labor/prolonged labor, postpartum hemorrhage, increased obstetric surgery (especially CS), maternal morbidity and mortality. Prematurity (dystes perna syndrome) is one of the complications of PROM in the fetus.

## **CONCLUSION**

The results of data research carried out on the patient Mrs "N", who is 32 years old, showed that the mother experienced penetrating abdominal pain in the back along with mucus discharge and water coming out of the birth canal since February 12 2024 at 17.00 WITA.

In this study, immediate action management was carried out in latent phase inpartum cases with PROM, which included monitoring the condition of the fetus, bed rest, and providing adequate nutrition. In addition, in latent phase inpartum cases with conservative PROM, a midwifery care plan has been provided, which includes monitoring the condition of the fetus, bed rest, and administering oxytocin only according to the midwife's indications.

Evaluation of Mrs. "N" was carried out properly and according to procedures (SOP). Babies born after assisted delivery are born normally, in good condition, alive, cry quickly and are active. The mother's general condition is good, uterine contractions are good, vaginal bleeding is good, and vital signs are normal. In general, theoretical research and midwifery practice in the latent phase of labor and premature rupture of membranes did not find any significant differences.

In this research there are several limitations. The obstacles faced include limited human resources and facilities at the community health center, as well as limited time in carrying out visits and ongoing monitoring. Another obstacle is limited access to information and education for patient families, which affects the effectiveness of interventions. These limitations need to be taken into account to improve the quality of sustainable midwifery care for future pregnant women.

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