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Implementation care nursing child: Hyperbilirubinemia

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ABSTRACT

Hyperbilirubinemia is a condition characterized by elevated bilirubin levels in newborns that clinically appear as jaundice. This study aimed to describe the implementation of nursing care in newborns diagnosed with hyperbilirubinemia in a hospital setting. A descriptive case study approach was used involving three newborns with hyperbilirubinemia treated at Gunung Maria General Hospital, Tomohon, in March 2024. Data were obtained through comprehensive nursing care processes including assessment, nursing diagnosis, planning, implementation, and evaluation. The findings indicated that the infants experienced neonatal jaundice accompanied by hyperthermia, risk of impaired skin integrity, risk of infection, and parental anxiety. Nursing interventions were carried out through phototherapy management, breastfeeding education, hyperthermia management, infection prevention, and maintenance of skin integrity. After four days of nursing care, bilirubin levels decreased and the identified nursing problems showed improvement. The implementation of nursing care, particularly phototherapy combined with supportive interventions, contributed to the improvement of the infants' condition and reduction of bilirubin levels.

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INTRODUCTION

Care during pregnancy is an ongoing program during pregnancy, labor, and birth. Care pregnancy that needs noticed is care self, immunization, following pregnancy exercise activities, adequate rest, check- ups pregnancy in a way regular, and intake nutrition needed by mothers pregnant. So from That maintenance pregnancy required existence level knowledge, because someone who has knowledge, which is good about health will practice behavior Healthy in himself (Yanti and Nurrohmah, 2023).

A newborn baby (BBL) is a baby who has just been born. experiencing the birth process 0-28 days old. Newborn birth (BBL) requires adjustment physiological in the form of maturation,

adaptation, and BBL tolerance for can life with good. New baby born also known as neonates is individuals who are growing and new just experienced birth trauma as well as must can do adjustment self from intrauterine life to life extrauterine (Vezka , 2022).

One of the problems that often occurs in babies new born is hyperbilirubinemia This only occurs in babies new born or aged 0-7 days. Hyperbilirubinemia marked with jaundice consequence height bilirubin levels in blood. Hyperbilirubinemia is results hemoglobin breakdown due to cell blood damaged red blood cells. Hyperbilirubinemia can happen in a way physiological and pathological.

In a way physiological babies who experience yellow on the face and neck, or to a degree one and two (<12 mg/dL) can overcome with adequate breastfeeding and sunlight sun Morning with range time 07.00-09.00 WITA for 15 minutes . pathological is jaundice that occurs in the first 24 hours after birth, baby will experience yellow throughout body or degrees three up to five (>12 mg/dL), in the indication for administering phototherapy (Sari, 2022).

Hyperbilirubinemia can be caused by several things factors. These include heart Not yet functioning optimally, baby No get enough breast milk because problems faced Mother during the breastfeeding process, lack of reflex sucking baby or because breast milk is not yet fully out, and the existence of incompatibility group blood between mother and baby. And the problems that often arise appear in patients hyperbilirubinemia that is jaundice neonates (Established, 2021).

For prevent hyperbilirubinemia, infant must given enough breast milk and get ray sun good morning, check up baby to facility health If there is color yellow in the area skin, during pregnancy expected always control content, and ensure consume eat nutritious food.

Complications of hyperbilirubinemia include jaundice. is something syndrome neurology that arises as consequence hoarding effect conjugated in cells brain so that brain experience damage , thing This can cause convulsions and decline awareness and isa ends with death (nur et al. , 2021).

The implications of the risk of complications from hyperbilirubinemia, particularly neurological damage such as kernic jaundice, which can lead to seizures, decreased consciousness, and even death, require nurses to play a more comprehensive role in prevention and treatment. Nurses focus not only on curative measures but also on early detection through monitoring bilirubin levels, observing for signs of jaundice, and assessing risk factors in newborns. Furthermore, nurses play a role in ensuring adequate nutrition through adequate breastfeeding to aid bilirubin elimination, as well as educating mothers on proper breastfeeding techniques and the importance of frequent breastfeeding. In management, nurses are also responsible for the safe and effective implementation of phototherapy, including monitoring the baby's body temperature, hydration, and protecting the baby's eyes and genital area to prevent side effects of the therapy.

Therefore, the high risk of complications from hyperbilirubinemia places nurses as healthcare workers with a strategic role in reducing morbidity and mortality in newborns through a continuous promotive, preventive, curative, and educational approach. Therefore, nurses also play an important role in providing nursing care which includes providing nutrition, providing phototherapy to prevent the effects of phototherapy on babies, monitoring adequate breast milk intake, applying eye patches and using diapers to protect the baby's genital area and maintaining cleanliness. Nurses also play a role important in giving care nursing covering giving nutrition, provision phototherapy For prevent occurrence impact phototherapy in infants, monitoring adequate breast milk intake, installing closing eyes and use diaper For protect the genital area babies and maintaining cleanliness.

RESEARCH METHOD

The subjects of this case study were 3 patients who experienced hyperbilirubinemia patients treated at Gunung Maria General Hospital, Tomohon. Research done in the month March 2024. Research This done Alone with documentation guidelines and formats care nursing child start

from assessment, nursing diagnosis, objectives, interventions, implementation and evaluation using the 3S book.

Data collection process during the first three focused on assessment nursing, enforcement priority nursing diagnosis, making planning nursing, implementation nursing, as well as evaluation nursing. Second and third day focused on implementation and evaluation nursing. Focus main assessment nursing that is evaluate degrees jaundice with Kramer Sign, symptoms kernicterus, results total, indirect bilirubin laboratory as well as direct. Nursing diagnosis enforcement based on symptom main ones that appear in babies hyperbilirubinemia. Planning nursing arranged based on priority nursing diagnoses with intervention independent and collaborative. Implementation done based on interventions that have been compiled. Evaluation nursing done with compose results from implementation nursing.

Data analysis from this research consists of from four step that is data collection, data processing, and conclusions results research. Underlying ethics in study this consists of from informes consent (parents' statement) related willingness the baby become respondents, anonymity (writing identity baby with initials), and confidentiality (author guard confidentiality all research data).

The purpose of this study was to obtain an in-depth understanding of the implementation of nursing care for infants with hyperbilirubinemia in a real-life clinical context. The use of three patients was intended to provide a variety of clinical conditions and responses to interventions, thereby enriching our understanding of nursing practice. The limited number of subjects was not intended to generalize, but rather to provide contextual and applicable clinical illustrations.

RESULTS AND DISCUSSIONS

Result

The study's findings encompass the nursing process, including assessment, nursing diagnosis, intervention, implementation, and evaluation. The findings are consistent with existing theory and previous research on nursing care for hyperbilirubinemia, which emphasizes early detection of jaundice, adequate feeding (especially breastfeeding), and the use of phototherapy as primary interventions to reduce bilirubin levels. Furthermore, this study supports previous findings that comprehensive nursing care—including monitoring physiological conditions, maintaining hydration, and providing parental education—plays a critical role in improving neonatal outcomes and preventing complications. Therefore, these findings reinforce the importance of a holistic nursing approach in managing neonatal hyperbilirubinemia. The results of the nursing assessment in three newborns with hyperbilirubinemia are presented in Table 1.

Table 1. Assessment pediatric nursing with hyperbilirubinemia

Case	Assessment Nursing
Case 1	By. SM female, 5 days old treated Because jaundice from 24 hours of birth. Circumstances general moderate, compos mentis consciousness, crying strong, skin jaundice, frequency breathing 44x/ minute, frequency pulse 150x/ minute, temperature 37.8˚C, skin dry , mucous lips dry, mother says there is a lot of breast milk, mother say reflex baby breast-feed No adequate, baby born section caesarean section, baby direct crying, movement active, with G1P1A0 and gestational age of 37-38 weeks, birth weight 2800 grams, circumference head 35 cm, chest circumference 31 cm, circumference stomach 28.5 cm, body length 46 cm, circumference arm above 9.5 cm. Apgar score 6/8. The baby is breastfeeding 30 ml of breast milk and 30 ml of formula milk, no There is vomiting, skin turgor looks peeling, body feels warm, no There is seizures, rooting reflex present, sucking reflex weak, reflex extrusion there is a reflex neck tonic is present, reflex moro there is, plantar reflex is there, walking reflex is not there is, and reflex Babinski there is a baby use phototherapy. Skin color jaundice, face jaundice, elderly patient visit, there is contact eyes, washing hand before contact with patients, giving breast milk, and feeling worry to his son. Total bilirubin 22.0 mg/dL, direct bilirubin 0.50 mg/dL.
Case 2	By. HF male, 3 days old treated Because jaundice since 24 hours of birth, frequency breathing 49x/ minute, frequency pulse 133x/ minute, temperature 38.2˚C, baby born section caesarean, age

Case	Assessment Nursing
	pregnancy 37-38 weeks, birth weight 2,550 grams, body length 49 cm, condition general moderate, compos mentis consciousness, crying strong, rooting reflex present, sucking reflex weak extrusion there is a reflex neck tonic is present, reflex moro there is, plantar reflex is there, walking reflex is not there there is, and reflex Babinski there is, and Apgar score 7/9. Condition after born baby cry strong, drink orally, mucosa mouth dry, there is piece rope center, no vomiting, baby looks jaundice in the face skin and neck, body feels hot, baby use phototherapy, breathing spontaneous, no There is shortness of breath, parents baby looks worried, parents visiting parents giving breast milk. And not There is decline weight. Total bilirubin 18.70 mg/dL, direct bilirubin 0.40 mg/dL.
Case 3	By. EK type sex female, 4 days old, cared for Because jaundice since 24 hours of birth, circumstances general weak, compos mentis consciousness. The baby looks jaundice in the face, skin, sclera, membrane mucosa. Frequency breathing 52x/ minute, pulse 149x/ minute, temperature Body temperature 37.8 ˚C, birth weight 2,750 grams, birth length 46.8 cm. The baby cried strong , capillary refill time <3 seconds, skin turgor elastic, moving active, reflex breast-feed adequate, Baby looks jaundice on the face, sclera and skin, no happen convulsions, fever body increased, parents visiting, there is contact eyes, touch baby, carrying baby, talking with baby, and feel worry against his son. Total bilirubin 13.8 mg/dL, direct bilirubin 0.6 mg/dL.

Based on the assessment findings, several nursing diagnoses were established for each case. The nursing diagnoses identified in the three cases are shown in Table 2.

Table 2. Nursing diagnosis of newborns with hyperbilirubinemia tim pokja SLKI PPNI (2019)

Case	Nursing Diagnosis
Case 1	Jaundice neonates relate age not enough from 7 days (D.0024)
	Breast-feed No effective relate with inadequacy reflex sucking baby (D.0029)
	Hyperthermia relate with use incubator (D.0130)
	Risk of disruption integrity skin / tissue proven with therapy radiation (D.0129)
	Risk of infection proven with procedure invasive (D.0142)
	Deficit knowledge relate with not enough exposed information (D.0001)
	Anxiety relate crisis situational (D.0080)
Case 2	Jaundice neonates relate with age not enough from 7 days (D.0024)
	Hyperthermia relate with usage incubator (D.0130)
	Risk of disruption integrity skin / tissue proven with therapy radiation (D.0129)
	Risk of infection proven with procedure invasive (D.0142)
	Anxiety relate with crisis situational (D.0080)
Case 3	Jaundice neonates relate with age not enough from 7 days (D.0024)
	Hyperthermia relate with use incubator (D.0130)
	Anxiety relate with crisis situational (D.0080)
	Risk of infection proven with effect procedure invasive (D.0142)

Nursing interventions were implemented according to the priority nursing diagnoses. The implementation of nursing care provided to newborns with hyperbilirubinemia is presented in Table 3.

Table 3. Implementation nursing baby new born with Hyperbilirubinemia Tim Pokja SLKI PPNI (2018)

Nursing Diagnosis	Implementation Nursing
Jaundice neonates relate age not enough from 7 days (D.0024)	Phototherapy Neonates (I.03091) Observation Monitor for jaundice in the sclera and skin. baby Identification need fluid in accordance with age gestation and weight Monitor temperature and vital signs every 4 hours Monitor effects side Photo therapy (e.g. hyperthermia , diarrhea, rash on the skin , decreased overweight from 8-10%) Therapeutic Get ready lamp Photo therapy and incubator one box baby Prepare a phototherapy lamp and an incubator or baby box.

Nursing Diagnosis	Implementation Nursing
	Remove baby's clothes except for the diaper. Give me a blindfold Allow the baby's body to be exposed to phototherapy rays continuously. Change the baby's pad and diaper immediately if the baby has a bowel movement/urine. Give the baby something to drink Weigh your body weight Collaboration Collaboration of direct and indirect bilirubin venous blood examination, if necessary Collaboration in drug administration
Breast-feed No effective relate with inadequacy reflex sucking baby (D.0029)	Breastfeeding education (I. 12393) Observation Identify readiness and ability to receive information Identify the baby's sucking ability Therapeutic Support mothers to increase their confidence in breastfeeding Engage support systems Education Provide breastfeeding counseling Explain the benefits of breastfeeding for mothers and babies Teach 4 (four) breastfeeding positions and correct latch on Teach postpartum breast care (e.g. expressing breast milk, breast massage, oxytocin massage)
Hyperthermia related to incubator use (D.0130)	Hyperthermia Management (I.15506) Observation Identify the cause of hyperthermia (e.g. dehydration, exposure to hot environments, use of incubators) Body temperature monitor Monitor electrolyte levels Monitor urine output Monitor for complications due to herthermia Therapeutic Provide a cool environment Loosen or remove clothing Wet and fan the body surface Give oral fluids Change linen daily or more often if you experience hyperhidrosis (excessive sweating). Apply external cooling (e.g. hypothermia blanket or cold compress on forehead, neck, chest, abdomen, axilla) Avoid giving antiseptics or aspirin give oxygen, if necessary Education recommend bed rest Collaboration collaboration in administering intravenous fluids and electrolytes, if necessary
Risk of impaired skin/tissue integrity as evidenced by radiation therapy (D.0129)	Skin Integrity Care (I.11353) Observation Identify the causes of impaired skin integrity Therapeutic Change position every 2 hours if on bed rest Massage the bony prominence area, if necessary. Clean the perineum with warm water, especially during periods of diarrhea. Use petroleum or oil-based products on sensitive skin.

Nursing Diagnosis	Implementation Nursing
	Avoid alcohol-based products on dry skin.
	Education
	Recommend using moisturizer (e.g. lotion, serum)
	Recommend drinking enough water
	Recommend increasing nutritional intake
	Recommend increasing fruit and vegetable intake
	Recommend avoiding exposure to extreme temperatures
	It is recommended to use sunscreen with an SPF of at least 30 when outside the house.
	Recommend bathing and using enough soap
Risk of infection is evidenced by the effects of invasive procedures (D. 0142)	Infection Prevention (I.14539)
	Observation
	Observation of vital signs
	Monitor for signs and symptoms of local and systemic infection.
	Therapeutic
	Limit the number of visitors
	Provide skin care to the edema area
	Wash hands before and after contact with patients and the patient's environment.
	Maintain aseptic technique in high-risk patients.
	Education
	Describe the signs and symptoms of infection
	Teach how to wash hands properly
	Teach cough etiquette
	Teach how to check the condition of a wound or surgical wound
	Recommend increasing nutritional intake
	Recommend increasing fluid intake
	Collaboration
	Collaboration in providing immunizations, if necessary
Knowledge deficit related to lack of exposure to information (D.0001)	Baby Care Education (I.12419)
	Observation
	Identify readiness and ability to receive information
	Therapeutic
	Provide health education materials and media
	Schedule health education as agreed
	Give an opportunity to ask questions
	Education
	Explain the benefits of baby care
	Teach your baby to bathe by paying attention to the temperature, twice a day.
	Teach umbilical cord care
	It is recommended to sunbathe your baby before 9 am.
	Recommend changing the diaper immediately if it is wet.
	Recommend breastfeeding according to the baby's needs
Anxiety related to situational crisis (D.0024)	Anxiety Reduction (I.09314)
	Observation
	Identify when anxiety levels change
	Identify decision-making skills
	Monitor for signs of anxiety
	Therapeutic
	Create a therapeutic atmosphere to foster trust
	Accompany the patient to reduce anxiety
	Understand the situation that causes anxiety
	Listen attentively
	Use a calm and reassuring approach
	Place personal items that provide comfort
	Motivation to identify situations that trigger anxiety

Nursing Diagnosis	Implementation Nursing
	Realistic planning discussion about upcoming events
	Education
	Explain the procedure, including any sensations you may experience.
	Provide factual information on diagnosis, treatment, and prognosis.
	Encourage the family to stay with the patient
	Encourage expressing feelings and perceptions
	Practice vision activities to reduce tension
	Practice proper use of self-defense mechanisms
	Practice relaxation techniques
	Collaboration
	Collaboration in administering anti-anxiety medication, if necessary

After the implementation of nursing care, evaluation was conducted to determine patient outcomes. The evaluation results of nursing care in the three cases are shown in Table 4.

Table 4. Evaluation pediatric nursing with hyperbilirubinemia tim pokja SLKI PPNI (2019)

Case	Nursing Diagnosis	Evaluation Nursing
Case 1	Jaundice neonates relate with age not enough from 7 days (D.0024)	Already resolved (total bilirubin level 12.0 mg/dL, Indirect 0.63 mg/dL)
	Breast-feed No effective relate with inadequacy reflex sucking baby (D.0029)	Already resolved (already) existence reflex sucking baby , patient looks start fast in breastfeeding)
	Hyperthermia relate with use incubator (D.0130)	Already resolved (temperature normal body temperature is 36.6˚C and not There is sweat excessive)
	Risk of damage integrity skin / tissue proven with therapy radiation (D.0129)	Does not happen (skin patient looks getting better No peeled off)
	Risk of infection proven with procedure invasive (D. 0142)	Infection No happened (rope center looks start dry)
	Deficit knowledge relate with not enough exposed information (D.0001)	Already resolved (mother patient Already know How baby care)
	Anxiety relate with crisis situational (D.0080)	Already resolved (parents patient looks No nervous again, parents patient looks calm)
Case 2	Jaundice neonates relate with age not enough from 7 days (D.0024)	Already resolved (total bilirubin 13.06 mg/dL, indirect 0.71 mg/dL)
	Hyperthermia relate with use incubator (D.0130)	Already resolved (temperature normal body temperature (36.8˚C)
	Risk of damage integrity skin / tissue proven with therapy radiation (D.0129)	Does not happen (skin patient looks getting better)
	Risk of infection proven with procedure invasive (D. 0142)	Infection No happened (rope center looks start dry)
	Anxiety relate with crisis situational (D.0080)	Already resolved (parents patient looks No nervous)
Case 3	Jaundice neonates relate with age not enough from 7 days (D.0024)	Already resolved (total bilirubin 13.8 mg/dL, indirect 0.6 mg/dL).
	Hyperthermia relate with use incubator (D.0130)	Already resolved (temperature normal body)
	Anxiety relate with crisis situational (D.0080)	Already resolved (parents patient looks No nervous)
	Risk of infection proven with procedure invasive (D. 0142)	Infection No happened (rope center looks start dry)

Discussion

Assessment nursing

Hyperbilirubinemia is condition common in babies new birth which refers to color yellowing of the skin and parts sclera caused too the amount of bilirubin in blood (Mendiri, 2021). Hyperbilirubinemia is condition Where happen improvement bilirubin levels in blood >5 mg/dL, which is clinical characterized by the presence of jaundice (Primasdika et al., 2023)

According to (Established, 2021) classification hyperbilirubinemia shared become degree I to with Grade V. Grade I: Jaundice in the affected area head and neck estimated bilirubin 5.0 mg/dL, grade II: Jaundice of the upper body estimated bilirubin 9.0 mg/dL, grade III: Jaundice in the lower body until legs estimation bilirubin level 11.4 mg/dL, grade IV: Jaundice in the arm until with the lower leg knee estimated bilirubin 12.4 mg/dL, grade V: Up to area palm approximate hands and feet bilirubin level 16 mg/dL.

According to (Established, 2021) reason from disease yellow or hyperbilirubinemia There is a number of namely: Jaundice (jaundice) mostly new baby born own disease light yellow. This is happen Because heart Not yet functioning optimally. This is often appear moment baby aged 2 to 4 days and disappears at the age of 1 to 2 weeks, premature al this normal occurs in babies premature Because body they not enough Ready For excrete bilirubin effective. For avoid complications, babies born premature need handling special even when their bilirubin levels more low than the baby born with disease normal jaundice, breastfeeding (breast milk giving) disease yellow can happen when in babies No get enough breast milk because difficulty Mother with the breastfeeding process or because breast milk is not yet available fully out. This is No caused by problems with breast milk alone. If the baby own type disease yellow, important For involving consultation (breastfeeding) in handling. incompatibility group blood If a mother and baby own type different blood, body Mother Possible produce antibodies that destroy cells blood red in babies. This is create accumulation of bilirubin in blood baby in a way suddenly . According to (Pratiwi et al., 2024) maternal, neonatal, and perinatal factors are reason happen jaundice. Maternal factors history family, place childbirth, rhesus, ABO incompatibility, age mother, and knowledge less mother in method good and correct breastfeeding, attitudes and social low economic status, perinatal factors include CS delivery, complications moment birth (asphyxia, sepsis) and birth trauma. Babies experience sepsis due to infection from bacteria and viruses. Fetuses and infants are particularly vulnerable to infection, neonatal factors include low breast milk intake, weight baby born low birth weight (LBW), type gender and age pregnancy. Jaundice more easy occurs in LBW compared to with baby with heavy more normal births easy experience jaundice compared with babies who have normal weight.

Nursing Diagnosis

Based on review theory, nursing diagnosis that exists in patients jaundice neonates namely: jaundice neonates relate with age not enough of 7 days, with supporting data in case 1: Total bilirubin 22.0 mg/dL, direct bilirubin 0.50 mg/dL. And the patient looks jaundice in the skin and sclera. Case 2: Total bilirubin 18.70 mg/dL, direct bilirubin 0.40 mg/dL. And the baby looks jaundice in the face and sclera. Case 3: total bilirubin 13.8 mg/dL, direct bilirubin 0.6 mg/dL and the patient looks jaundice in the face and membrane mucosa looks yellow. Breast-feed No effective relate with inadequacy reflex sucking infants, with supporting data in case 1: lack of reflex sucking breast milk/formula. Hyperthermia relate with use incubator, with supporting data in case 1: temperature body on normal value 37.8˚C. Case 2: temperature body on normal value 38.2 ˚C. Case 3: temperature body on normal value 38.2˚C, acral palpable warm.

Planning Nursing

Priority planning nursing in the diagnosis of jaundice neonates relate with age not enough from 7 days. This become priority Because condition jaundice leading to complications jaundice, where jaundice is something syndrome neurology that arises as consequence generation effect conjugated in cells brain so that brain experience damage, things This can cause convulsions and decline awareness as well as Can end with death due to that, helps jaundice neonates become priority main in planning nursing.

Nursing Implementation

Based on structured interventions , then writer do implementation action nursing care for patients with parents with problems experienced that is do action nursing in accordance with the

nursing diagnosis raised that is jaundice neonates relate with age not enough from 7 days. Risk of damage integrity skin / tissue proven with therapy radiation, with data supporters in case 1: Skin baby looks peeling, skin turgor looks not enough elastic, skin baby looks dry. Case 2: Skin baby looks peeling and skin baby looks dry. Risk of infection proven with effect procedure invasive, with supporting data in cases 1, 2 and 3 being the same that is Because existence piece rope center, and looks rope center Not yet dry.

Deficit knowledge relate with not enough exposed information, with supporting data in case 1: there is parent patient looks Not yet know How baby care. Anxiety relate with crisis situational, with supporting data found in cases 1, 2 and 3: because the parents baby worry with the condition experienced by her child , mother baby looks nervous. Implementation carried out monitor jaundice of the sclera and skin baby, identify need fluid in accordance with age gestation and weight, monitoring effect side phototherapy, preparing light phototherapy, closing eye patient and put on diaper patient. Breast-feed No effective relate with inadequacy sucking baby implementation carried out, identifying readiness and capability accept information, identify ability sucking baby, support Mother increase trust self in breastfeeding, involving system supporters, and explain benefit breast-feed for mother and baby.

Hyperthermia relate with usage incubator implementation carried out identify reason hyperthermia, monitor temperature body , giving oral fluid . Risk of damage integrity skin / tissue proven with therapy radiation implementation carried out identify reason disturbance integrity skin, change position every 2 hours if bed rest, cleaning the perineum with warm water. Risk infection proven with therapy radiation implementation which is conducted monitor signs and symptoms infection local and systemic, observing vital signs, limiting total visitors, giving maintenance rope center, washing hand before and after contact with patients and the environment patient.

Deficit knowledge relate with not enough exposed information implementation carried out identify readiness and capability accept information, providing chance For ask, explain benefit baby care, teaching bathing baby with notice temperature twice a day, teaching maintenance rope center, advocate For drying baby before 9 a.m. and recommends breast-feed in accordance need. Anxiety relate with crisis situational implementation provided identify moment level anxiety change, monitor signs anxiety, creating atmosphere therapeutic For grow trust, and inform in a way factual diagnosis, treatment and prognosis.

Evaluation nursing

Based on results examination and determination of nursing diagnoses , as well as compile intervention and implement it to the patients So, in cases 1, 2 and 3 Jaundice neonates relate with age not enough from 7 days results evaluation obtained after 4 days maintenance that is problem jaundice neonates resolved. With criteria results membrane mucosa dry decreased, skin kenung decreased, sclera yellow decreased activity extremities getting better.

Breast-feed No effective relate with inadequacy reflex sucking baby. In case 1, the results evaluation obtained after 4 days maintenance that is problem breast-feed No effective resolved. With criteria results placement baby on the breast Mother increase ability Mother positioning baby with Correct increased, adequate breast milk supply increased, baby's sucking increase, baby cry after breast-feed decrease. Nursing diagnosis hyperthermia relate with use incubator in cases 1, 2 and 3 results evaluation obtained after 4 days maintenance that is problem problem hyperthermia teratsi with criteria results temperature body getting better, temperature skin improved skin palpable warm. Risk diagnosis damage integrity skin / tissue proven with therapy radiation in cases 1 and 2 results evaluation obtained after 4 days maintenance that is problem risk damage integrity skin / tissue No happen with criteria results damage layer skin decreased , texture skin improving. Risk of infection proven with procedure invasive in cases 1, 2 and 3 results evaluation obtained after 4 days maintenance that is infection No happen with criteria results reddish decreased, pain down, rope center getting better or start dry up.

Nursing diagnosis deficit knowledge relate with not enough information on case 1 results obtained after 4 days maintenance that is deficit knowledge resolved with criteria results behavior session recommendation increased, ability explain return increased, behavior in accordance with knowledge increased. Anxiety relate with crisis situational in cases 1, 2 and 3 results evaluation obtained for 4 days maintenance that is anxiety resolved with criteria results verbalization confusion decreased, verbalization worry consequence conditions faced decline, behavior nervous decrease behavior tense down, contact eye getting better.

CONCLUSION

The study in three cases showed jaundice on the skin, sclera, and face, ineffective breastfeeding, increased body temperature, risk of impaired skin integrity, risk of infection, knowledge deficit, and anxiety in parents. Nursing diagnoses that emerged included neonatal jaundice, ineffective breastfeeding, hyperthermia, risk of impaired skin integrity, risk of infection, knowledge deficit, and anxiety. Nursing care was prioritized on neonatal jaundice with phototherapy as the main intervention. Evaluation results indicated that most nursing problems were resolved after implementation of nursing care. The findings suggest that comprehensive nursing care using the 3S book can improve the condition of newborns with hyperbilirubinemia and prevent complications. However, this study was limited to three cases. Further research with a larger sample is recommended.

This study was limited to three cases, the results showed that optimal nursing interventions provided for 3x24 hours were able to improve the condition of the infant and address most nursing problems effectively. Based on the limited sample size, further research is recommended using a larger sample and a more robust design to increase the generalizability of the results, as well as further explore the effectiveness of interventions such as phototherapy, breastfeeding, and parental education in preventing complications of hyperbilirubinemia.

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