**WoW AI testing Qs**

Can you tell me the indications of magnesium sulfate administration in pregnant women for fetal neuroprotection?

Can you tell me the indications for CPAP in a newborn?

When is administration of antenatal corticosteroid therapy for pregnant women recommended? What is the importance of antenatal corticosteroid therapy?

What is the recommendation of plastic wrapping for prevention of hypothermia in preterm neonates?

What is the dose of vitamin K that should be given as essential newborn care at birth for preterm baby. I mean do we give the same dose of vitamin K for term and preterm neonates?

A lactating mother has one sided breast redness, pain, and swelling. Can she continue breastfeeding her newborn baby?

A 3 days old newborn presented with failure to suck the breast otherwise unremarkable. I was wondering if I should start antibiotics for suspected sepsis?

A 2 days old neonate who has yellowish discoloration of the skin brought to our hospital. How do I treat him?

My newborn baby has purulent discharge from the eyes. Is it serious? What should I do?

When should I bath my newborn baby?

A mother who gave birth 2 days ago has difficulty providing adequate amount of expressed breast milk to her newborn. How should I proceed on supporting and feeding the newborn?

In our setup, we don’t have a readymade 10% dextrose IV fluid; but we have 40% and 5% dextrose. How can I prepare the required amount of 10% dextrose from the available fluids?

<><><><><><><><><>

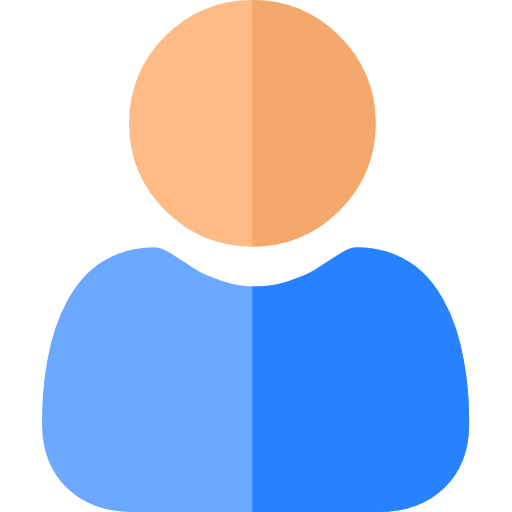
Date: 01-01-2025

Task: Testing AI assistant’s response to questions sent by Dr. Simret

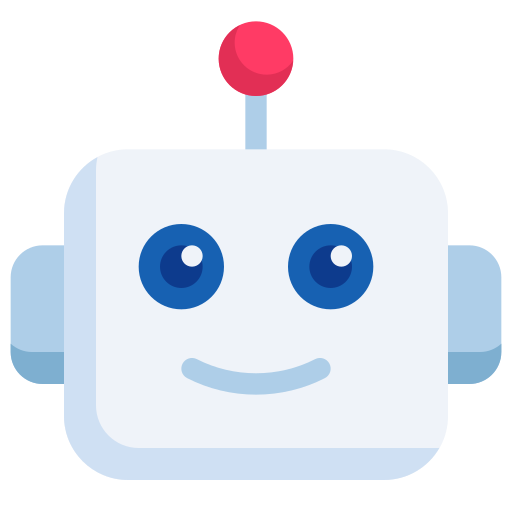
Worked by: Teja Basireddy

<><><><><><><><><>

1



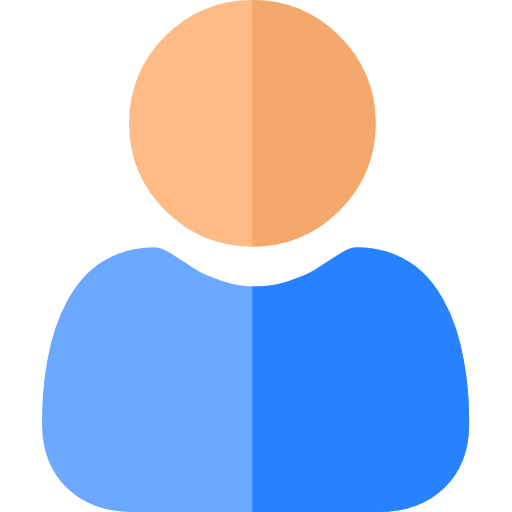
Can you tell me the indications of magnesium sulfate administration in pregnant women for fetal neuroprotection?



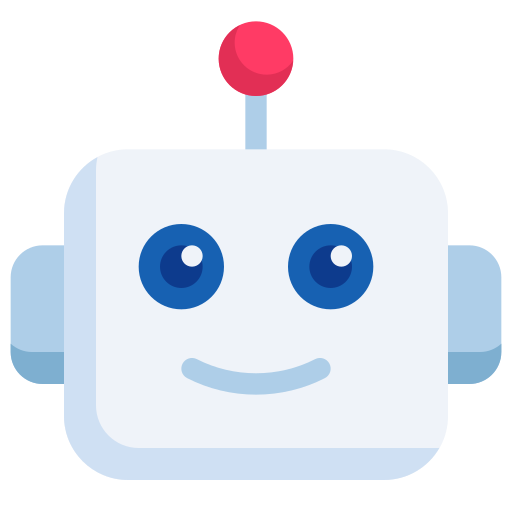
|  |  |
| --- | --- |
| Previous Response | New Response |
| Magnesium sulfate is administered to pregnant women for fetal neuroprotection under the following indications: Gestational Age: It is recommended for women with a gestational age of less than 32 weeks. Imminent Preterm Birth: It should be considered when preterm birth is likely within the next 24 hours. Neuroprotection: Magnesium sulfate is given to reduce the risk of cerebral palsy and protect gross motor function in preterm infants. Administration: A loading dose of 4 g is given intravenously over 20–30 minutes, followed by a maintenance dose of 1 g per hour, continuing for 24 hours or until birth, whichever comes first. Exclusions: Women with more than 8 cm cervical dilation or less than 2 hours from delivery are typically excluded from receiving magnesium sulfate for neuroprotection. Magnesium sulfate has a rapid neuroprotective effect and is not associated with adverse long-term fetal or maternal outcomes.  Would you like more information on this topic? Would you like to return to the main menu? Source: Document 2 | Magnesium sulfate is administered to pregnant women for fetal neuroprotection if the gestational age is less than 32 weeks. It is given either as an intravenous infusion or intramuscular injections to help prevent cerebral palsy in the infant. It's important to monitor for signs of magnesium toxicity, such as a respiratory rate less than 16 breaths per minute or absent patellar reflexes. If signs of toxicity appear, administration should be withheld and restarted only after these signs disappear.  Source: Abdominal Pain in Later Pregnancy and After Childbirth |

<><><><><><><><><>

2



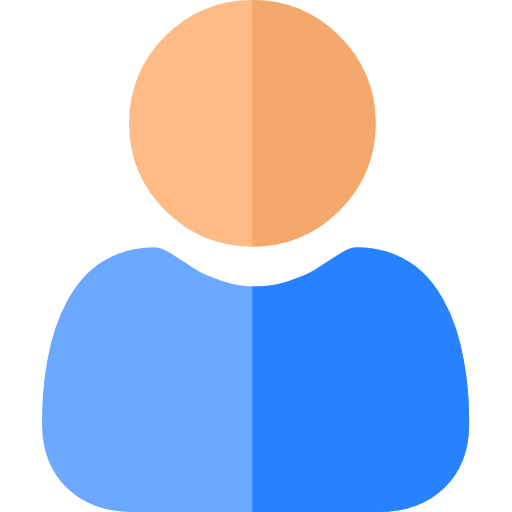
Can you tell me the indications for CPAP in a newborn?



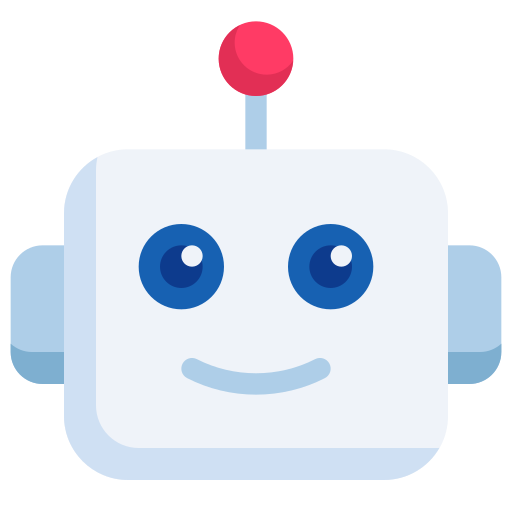
|  |  |
| --- | --- |
| Previous Response | New Response |
| Certainly! The indications for using CPAP (Continuous Positive Airway Pressure) in newborns include: 1. Mild to Moderate Respiratory Distress: Respiratory Distress Syndrome (RDS), especially in infants under 32 weeks of gestation. Early initiation after delivery is recommended. Wet Lung Syndrome (Transient Tachypnea of the newborn). Meconium Aspiration Syndrome. 2. Apnea of Prematurity: Used to manage apnea episodes in premature infants. 3.Atelectasis: For cases involving small lung volume or collapse. 4. Oxygen Requirements: Late preterm and term newborns requiring more than 30% oxygen or 0.5 L/min to maintain SpO2 above 90%.  5. Post-Extubation Support: CPAP can be used after extubation from mechanical ventilation to support breathing.  6. Initial Stabilization: For extremely preterm infants (25 to 28 weeks' gestation) who are spontaneously breathing in the delivery room. 7. Moderate Respiratory Distress in Premature Infants: As part of the initial management strategy.  These indications help guide the use of CPAP therapy in newborns facing respiratory challenges.  Would you like more information on this topic? Would you like to return to the main menu? Source: Clinical Reference Manual for Advanced Neonatal Care in Ethiopia | Continuous Positive Airway Pressure (CPAP) is indicated for newborns under the following conditions:  1. Good respiratory effort is present. 2. Downe’s score is ≥ 4, and oxygen requirement is > 30% Fio2, or saturation drops below 90% on 0.5-1 liter/minute. 3. Preterm newborns initiated on CPAP in the delivery room should continue in the NICU until the Downe score is less than four. 4. Term neonates with respiratory distress and saturations less than 90% on hood oxygen. 5. Recurrent apnea not responding to medical management. 6. Post-extubation from mechanical ventilation.  Would you like more information on the topic or return to the home screen?  Source: CPAP in Saving Little Lives. |

<><><><><><><><><>

3



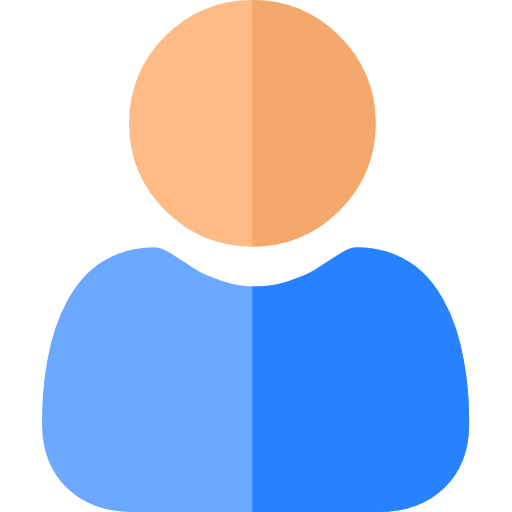
When is administration of antenatal corticosteroid therapy for pregnant women recommended? What is the importance of antenatal corticosteroid therapy?



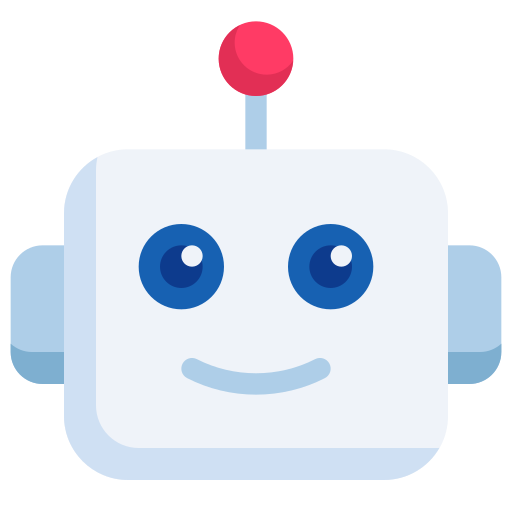
|  |  |
| --- | --- |
| Previous Response | New Response |
| Antenatal corticosteroid therapy is recommended for pregnant women under the following conditions: 1. Gestational Age: For women at risk of preterm birth between 24 and 34 weeks of gestation. 2. Imminent Preterm Birth: When preterm birth is considered likely within the next 7 days. 3. Conditions: Accurate gestational age assessment can be made. No clinical evidence of maternal infection. Adequate childbirth care is available.  Importance of Antenatal Corticosteroid Therapy: Fetal Lung Maturity: It accelerates the development of the fetal lungs, reducing the risk of Respiratory Distress Syndrome (RDS) in preterm infants. Neonatal Survival: Increases the chances of survival by reducing complications associated with preterm birth. Protection: Provides protection to the intestines and blood vessels in the brain, reducing the risk of conditions like intraventricular hemorrhage. Antenatal corticosteroids are a critical intervention in improving outcomes for preterm infants.  Would you like more information on this topic? Would you like to return to the main menu?  Sources: Document 0, Document 1, Document 2 | Antenatal corticosteroid therapy is recommended for pregnant women at risk of preterm birth between 24 and 34 weeks of gestation. This therapy is crucial as it improves fetal lung maturity and increases the chances of neonatal survival. The therapy is beneficial in reducing the risk of respiratory distress syndrome, decreasing neonatal mortality, and reducing the need for mechanical ventilation or oxygen supplementation.  Conditions for administration include accurate gestational age assessment, imminent preterm birth, absence of maternal infection, and availability of adequate childbirth and preterm newborn care. It is important to ensure that the therapy is given when these conditions are met to maximize benefits and minimize risks.  Would you like more information on the topic? Would you like to return to the home screen?  Source: Abdominal Pain in Later Pregnancy and After Childbirth S-145, S-144 Abdominal Pain in Later Pregnancy and After Childbirth. |

<><><><><><><><><>

4



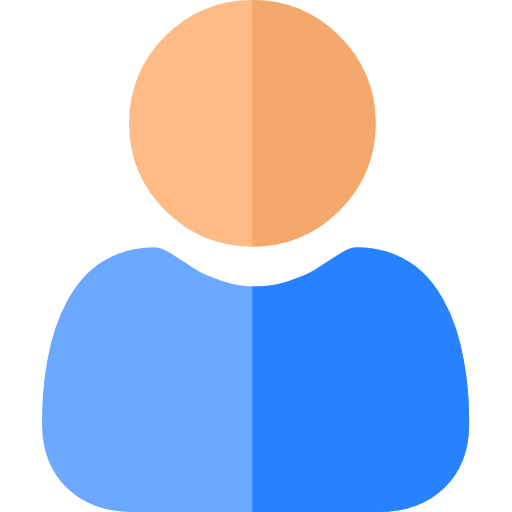
What is the recommendation of plastic wrapping for prevention of hypothermia in preterm neonates?



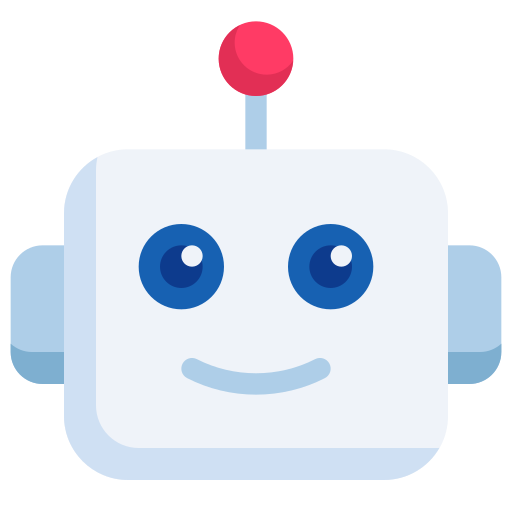
|  |  |
| --- | --- |
| Previous Response | New Response |
| Plastic wrapping is considered as an alternative method for preventing hypothermia in preterm newborns, particularly during stabilization and transfer to specialized neonatal care wards. Here are the recommendations: Effectiveness: There is insufficient evidence on the effectiveness of plastic bags/wraps in providing thermal care immediately after birth. However, it is conditionally recommended as an alternative during stabilization and transfer. Usage: Plastic wrapping may be used for preterm newborns to prevent hypothermia, especially in settings where traditional thermal care methods are not available. Evidence Quality: The recommendation is based on low-quality evidence, and its use is conditional. Plastic wrapping can help maintain body temperature in preterm infants, reducing the risk of hypothermia during critical periods.  Would you like more information on this topic? Would you like to return to the main menu?  Source: Management of Newborn and Young Infant Illnesses Document | Plastic wrapping is recommended as a method to provide thermal care for preterm babies during stabilization and transfer to neonatal care wards. This practice helps protect them from hypothermia. Specifically, for those less than 32 weeks of gestation, it is advised to wrap them with a plastic sheet just below the neck without drying with cloth, especially if they are to be transferred to the NICU. However, there is insufficient evidence on the effectiveness of plastic bags/wraps immediately after birth, but they may be considered during stabilization and transfer to prevent hypothermia.  Source: Topic 5: Timely and safe referral of newborns to NICU when admission is required: Plastic Wrap for preterm babies; MANAGEMENT OF NEWBORN AND YOUNG INFANT ILLNESSES. |

<><><><><><><><><>

5



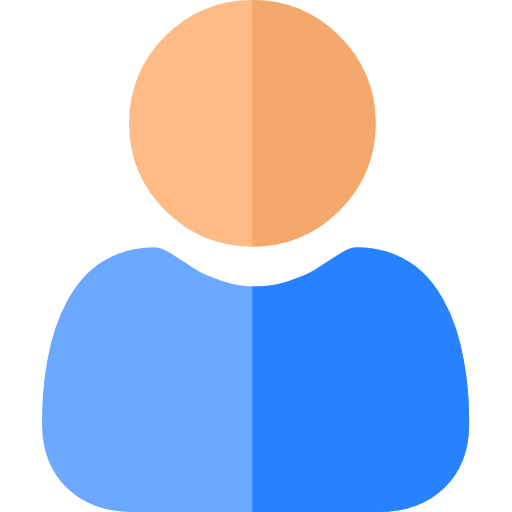
What is the dose of vitamin K that should be given as essential newborn care at birth for preterm baby. I mean do we give the same dose of vitamin K for term and preterm neonates?



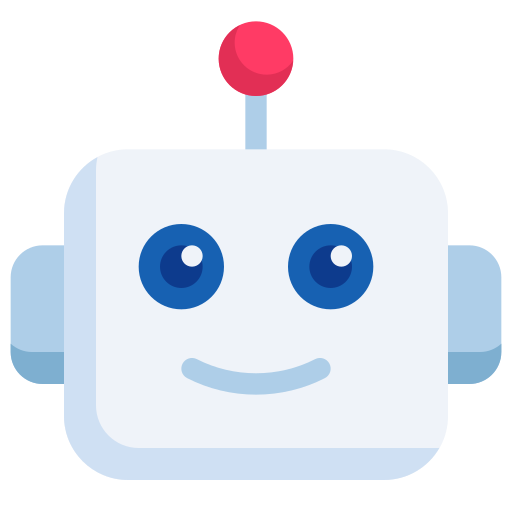
|  |  |
| --- | --- |
| Previous Response | New Response |
| Yes, the same dose of vitamin K is recommended for both term and preterm newborns as part of essential newborn care. The standard dose is: 1 mg of Vitamin K by intramuscular (IM) injection. This dose is given to prevent serious bleeding in newborns, known as Vitamin K Deficiency Bleeding (VKDB). The administration involves drawing up 1 mg of Vitamin K into a 1 mL syringe and injecting it into the muscle, typically in the mid-thigh area. Would you like more information on this topic? Would you like to return to the main menu? Source: Document 0, Document 1 | The documents provided do not specify different doses of vitamin K for term and preterm neonates. The general guideline is to give 1 mg of vitamin K by intramuscular injection to newborns. It is important to follow the specific guidelines of your healthcare facility or consult a healthcare professional for any variations in dosing for preterm infants.  Would you like more information on the topic? Would you like to return to the home screen?  Source: To improve care in your facility. |
| Are you sure about the dosage recommendation? |  |
| Yes, the recommended dose of Vitamin K for both term and preterm newborns is 1 mg administered by intramuscular (IM) injection. This dosage is part of essential newborn care to prevent Vitamin K Deficiency Bleeding (VKDB). Would you like more information on this topic? Would you like to return to the main menu? Source: Document 0, Document 1 |  |

<><><><><><><><><>

6



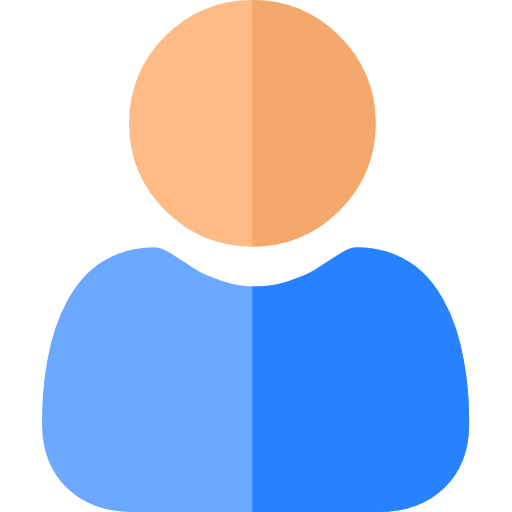
A lactating mother has one sided breast redness, pain, and swelling. Can she continue breastfeeding her newborn baby?



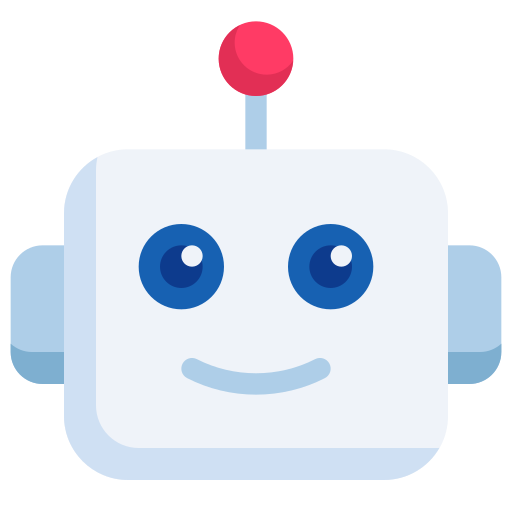
|  |  |
| --- | --- |
| Previous Response | New Response |
| Yes, a lactating mother with one-sided breast redness, pain, and swelling, which are symptoms of mastitis, can continue breastfeeding her newborn. It is important to keep the milk flowing from the affected breast to help resolve the infection. Here are some guidelines: Breastfeeding: Continue to breastfeed frequently, starting on the infected side. The milk is safe for the baby. Care for the Affected Breast: Apply a warm, wet cloth to the affected area. Gently compress and massage the breast to help with milk flow. Medication: An antibiotic like dicloxacillin may be prescribed, and paracetamol can be taken for pain and fever. HIV Consideration: If the mother is HIV positive, she should feed only from the healthy breast until her fever subsides. Continuing to breastfeed can help alleviate symptoms and prevent complications.  Would you like more information on this topic? Would you like to return to the main menu?  Source: Topic: Mastitis | Yes, a lactating mother experiencing one-sided breast redness, pain, and swelling can continue breastfeeding her newborn. This condition may indicate a breast infection, but the milk remains safe for the baby. The mother should ensure the baby is attaching deeply to the breast and continue to breastfeed frequently, starting on the infected side. It's important to keep the milk flowing by feeding or expressing milk frequently. If the mother is HIV infected, she should feed only from the healthy breast and express and discard milk from the infected breast until her fever is gone.  Source: Mastitis.  Would you like to see a video for this topic? |
|  | Yes |
|  | <https://rhlaiservice2.blob.core.windows.net/hmbs-enc2/Mastitis_CB_D.mp4> |

<><><><><><><><><>

7



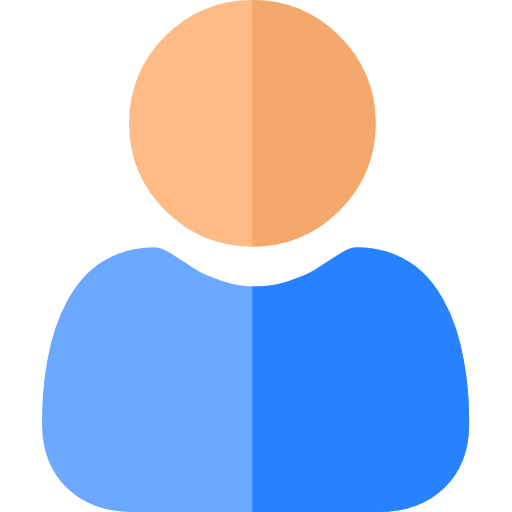
A 3 days old newborn presented with failure to suck the breast otherwise unremarkable. I was wondering if I should start antibiotics for suspected sepsis?



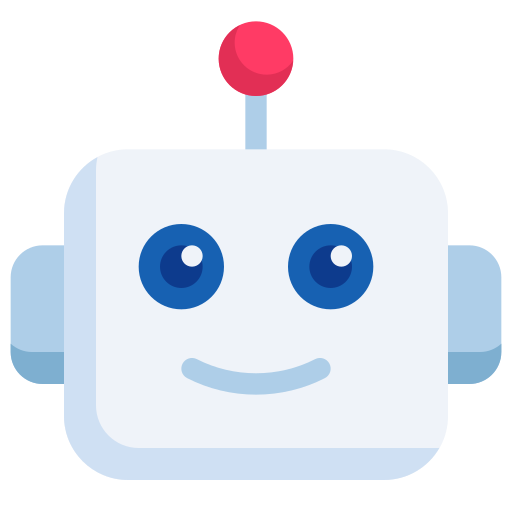
|  |  |
| --- | --- |
| Previous Response | New Response |
| In a 3-day-old newborn presenting with failure to suck, it is important to consider the possibility of sepsis, especially if the infant shows any other subtle signs or risk factors. While failure to suck can be a sign of sepsis, it is crucial to assess the overall clinical picture and any additional symptoms or risk factors before starting antibiotics. 1. Assessment: Evaluate for other signs of sepsis, such as temperature instability, lethargy, irritability, respiratory distress, or poor perfusion. Consider maternal risk factors for infection, such as prolonged rupture of membranes or maternal fever. 2. Decision to Start Antibiotics: If sepsis is suspected based on clinical assessment and risk factors, it is prudent to start empirical antibiotic therapy. Common initial antibiotics include ampicillin and gentamicin. 3. Further Evaluation: Conduct a septic workup, including blood cultures, if sepsis is suspected. Starting antibiotics can be crucial in managing suspected neonatal sepsis, but it should be based on a thorough clinical evaluation.  Would you like more information on this topic? Would you like to return to the main menu?  Source: Document 0, Document 1 | For a 3-day-old newborn with failure to suckle, it's important to consider the possibility of a serious condition, including sepsis. If the baby shows signs of infection, such as lethargy, difficulty breathing, or poor feeding, it's advisable to start empirical antibiotics like ampicillin and gentamicin immediately, even without a clear diagnosis. Observing the baby for signs of infection for three days is recommended if none of the risk factors apply. If signs of infection occur, arrange for a blood culture and initiate antibiotics.  Source: Immediate newborn conditions or problems S-183.  Would you like more information on the topic? |

<><><><><><><><><>

8



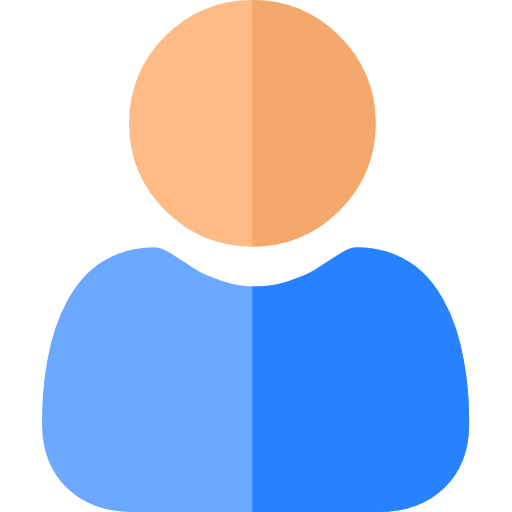
A 2 days old neonate who has yellowish discoloration of the skin brought to our hospital. How do I treat him?



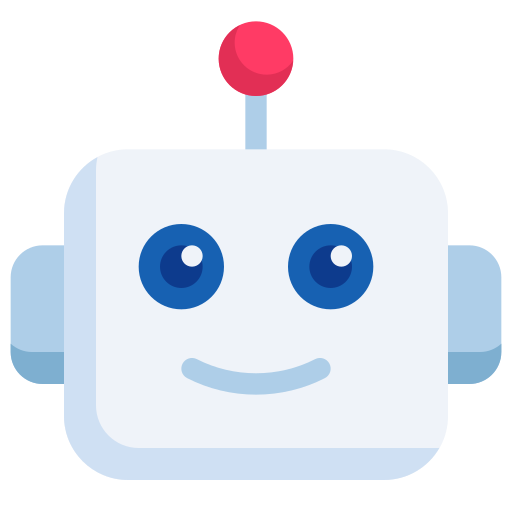
|  |  |
| --- | --- |
| Previous Response | New Response |
| In a 2-day-old neonate with yellowish discoloration of the skin, indicating jaundice, the following steps should be taken: Assessment: Determine if the jaundice is severe. Severe jaundice is present if the face is jaundiced earlier than 24 hours after birth or if the palms or soles are jaundiced at any time. Measure Bilirubin Levels: If possible, measure the bilirubin levels to assess the severity of jaundice. Treatment: Encourage breastfeeding or cup feeding to ensure adequate nutrition and hydration. If severe jaundice is confirmed, initiate treatment according to facility guidelines, which may include phototherapy or exchange transfusion, depending on the bilirubin levels. Referral: If the facility cannot provide the necessary treatment, refer the neonate to a higher-level care facility. Early recognition and appropriate management of jaundice are crucial to prevent complications such as kernicterus.  Would you like more information on this topic? Would you like to return to the main menu?  Source: Document 2 | For a 2-day-old neonate with yellowish skin discoloration, it's important to assess for severe jaundice. Here are the steps to follow:  Assess for Severe Jaundice: Check if the face is jaundiced earlier than 24 hours after birth or if the palms or soles are jaundiced at any time. Measure Severity: Use available methods to measure the severity of jaundice. Treatment or Referral: Begin treatment or refer the baby according to your facility's guidelines. Encourage Feeding: Encourage breastfeeding or cup feeding to help manage jaundice. Seek Advanced Care: If necessary, seek advanced care for the baby.  Would you like to see a video for this topic?  Source: To improve care in your facility, Recognize severe jaundice. |
|  | Yes |
|  | <https://rhlaiservice2.blob.core.windows.net/hmbs-enc2/Recognize_Severe_Jaundice_CB.mp4> |

<><><><><><><><><>

9



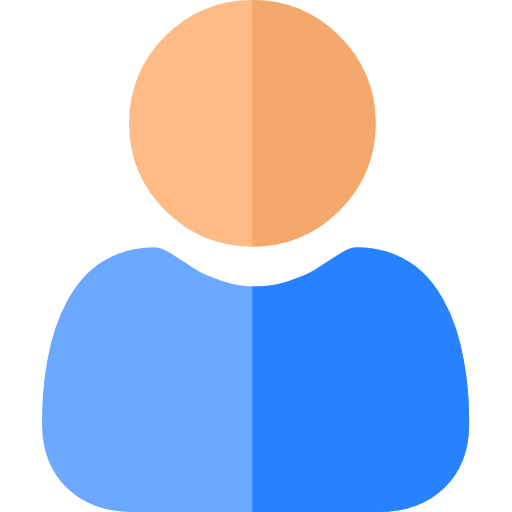
My newborn baby has purulent discharge from the eyes. Is it serious? What should I do?



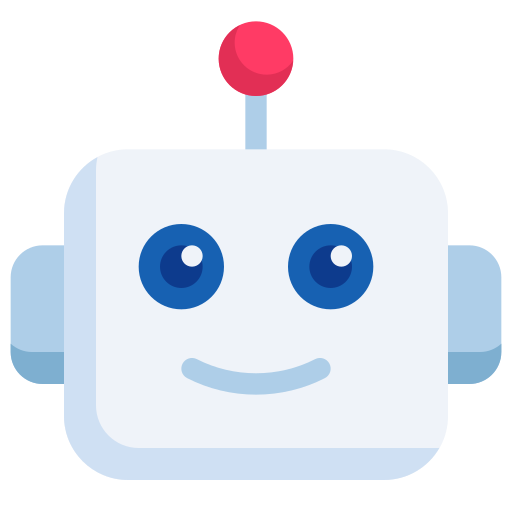
|  |  |
| --- | --- |
| Previous Response | New Response |
| Purulent discharge from a newborn's eyes can indicate a condition known as ophthalmia neonatorum, which is a serious eye infection. It requires prompt attention. Here's what you should do:  Immediate Action: Clean the eyelids using sterile normal saline or clean (boiled and cooled) water and a clean swab, wiping from the inside edge of the eye to the outside edge. Repeat cleaning four times daily until the eye problems have cleared. Medical Treatment: If the baby is less than 7 days old, it may be a gonococcal infection, requiring immediate treatment with antibiotics such as Ceftriaxone. If the baby is 7 days or older, or if the problem persists after initial treatment, it may be due to Chlamydia, requiring treatment with erythromycin and tetracycline ointment. Consult Healthcare Provider: Seek medical advice promptly for appropriate diagnosis and treatment. Timely intervention is crucial to prevent complications and preserve vision.  Would you like more information on this topic? Would you like to return to the main menu?  Source: Document 0 | Purulent discharge from a newborn's eyes can be a sign of an eye infection, such as ophthalmia neonatorum, which can be serious and requires prompt medical attention. The World Health Organization (WHO) recommends treating gonococcal conjunctivitis with antibiotics like ceftriaxone, kanamycin, or spectinomycin. For chlamydial conjunctivitis, azithromycin is preferred over erythromycin due to potential side effects.  It's crucial to consult a healthcare professional immediately to determine the cause and appropriate treatment for your baby's eye condition. They will provide guidance based on the specific infection and available medications.  Would you like more information on the topic? Would you like to return to the home screen?  Source: WHO Recommendations on Newborn Health. |

<><><><><><><><><>

10



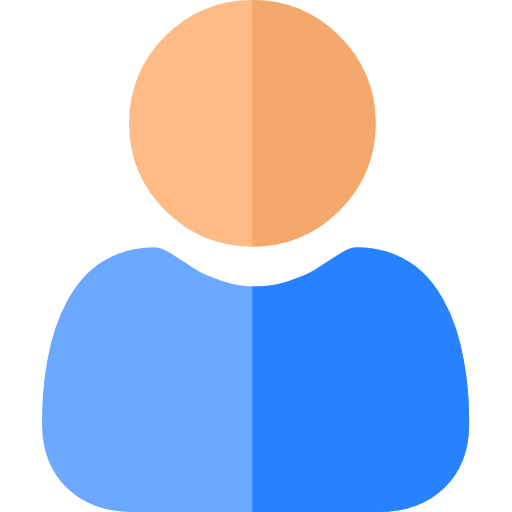
When should I bath my newborn baby?



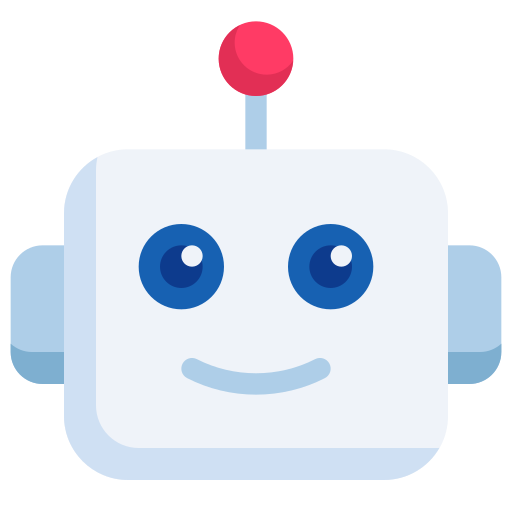
|  |  |
| --- | --- |
| Previous Response | New Response |
| It is recommended to delay bathing a newborn baby for at least 24 hours after birth. This delay helps maintain the baby's body temperature and supports skin health. If it is not possible to delay for 24 hours due to cultural or other reasons, then the bath should be delayed for at least 6 hours. Key points to consider: Temperature Regulation: Newborns can easily become cold, so delaying the bath helps them maintain their body temperature. Vernix Caseosa: This natural coating on the baby's skin provides protection and should not be washed off immediately after birth. After the initial delay, ensure the bathing environment is warm, and the baby is dried thoroughly afterward to prevent heat loss.  Would you like more information on this topic? Would you like to return to the main menu?  Source: Document 0 | Bathing should be delayed until after 24 hours of birth. If this is not possible due to cultural reasons, it should be delayed for at least 6 hours. Keeping the newborn warm is crucial, and appropriate clothing should be 1–2 layers more than adults, including a hat. The mother and baby should stay in the same room 24 hours a day to ensure warmth and bonding.  Source: PROMOTION OF NEWBORN AND YOUNG INFANT HEALTH AND PREVENTION OF NEWBORN AND YOUNG INFANT ILLNESSES. |

<><><><><><><><><>

11



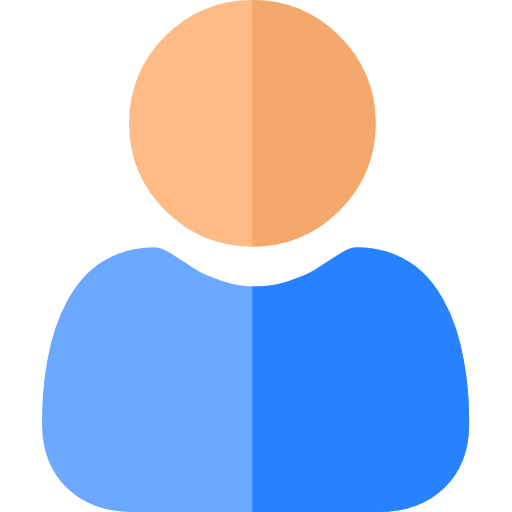
A mother who gave birth 2 days ago has difficulty providing adequate amount of expressed breast milk to her newborn. How should I proceed on supporting and feeding the newborn?



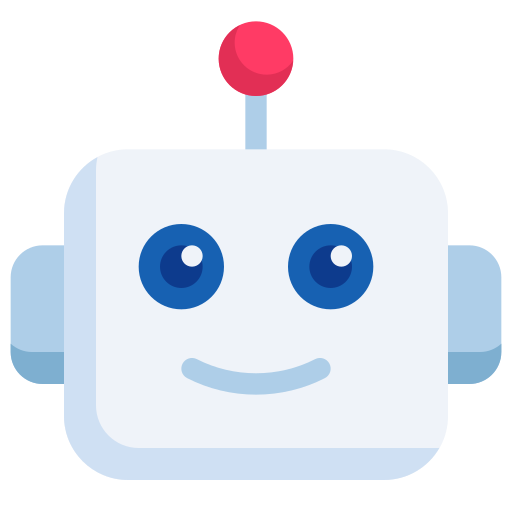
|  |  |
| --- | --- |
| Previous Response | New Response |
| Supporting a mother who is having difficulty providing adequate expressed breast milk involves several steps:  1. Breastfeeding Support: Encourage frequent breastfeeding to stimulate milk production. Ensure proper latch and positioning to improve milk transfer. 2. Expressing Milk: Teach the mother to express breast milk every 3 hours to maintain supply. Suggest using a breast pump if manual expression is not effective. 3. Supplemental Feeding: If the newborn is not receiving enough breast milk, consider supplementing with donor milk or formula, as appropriate. Use alternative feeding methods like cup or spoon feeding to avoid nipple confusion. 4. Maternal Support: Ensure the mother has adequate nutrition and hydration. Address any medical issues that may affect milk production. 5. Reassess Readiness: Encourage skin-to-skin contact and reassess the newborn's readiness to breastfeed daily. Providing comprehensive support can help improve milk supply and ensure the newborn receives adequate nutrition.  Would you like more information on this topic? Would you like to return to the main menu?  Source: Document 0 | To support a mother with difficulty providing adequate expressed breast milk, you can:  Teach her to express breast milk every 3 hours to stimulate production. Ensure she has adequate nutrition, increased fluid intake, and care for any medical problems. Encourage skin-to-skin contact and time at the breast to reassess breastfeeding readiness daily. Consider alternative feeding methods if the baby cannot breastfeed effectively. Additionally, evaluate the baby's effectiveness at breastfeeding by checking for feeding readiness cues, proper latching, steady sucking with pauses, and audible swallowing.  Source: To improve care in your facility, Support breastfeeding.  Would you like to see a video for this topic? |
|  | Yes |
|  | Here is the video URL for the topic: <https://rhlaiservice2.blob.core.windows.net/hmbs-enc2/Support_Breastfeeding_CB.mp4> |

<><><><><><><><><>

12



In our setup, we don’t have a readymade 10% dextrose IV fluid; but we have 40% and 5% dextrose. How can I prepare the required amount of 10% dextrose from the available fluids?



|  |  |
| --- | --- |
| Previous Response | New Response |
| To prepare 10% dextrose IV fluid from 40% and 5% dextrose solutions, you can use the following formula:  General Formula:  ( Vb = \frac{(a - x) \times Tv}{(a - b) + (x - b)} ) ( Va = \frac{(x - b) \times Tv}{(a - b) + (x - b)} )  Where: ( x ) = desired concentration (10%) ( a ) = concentration of the higher solution (40%) ( b ) = concentration of the lower solution (5%) ( Tv ) = total volume needed ( Vb ) = volume of 5% dextrose ( Va ) = volume of 40% dextrose Example Calculation: For a total volume (( Tv )) of 300 ml: ( Vb = \frac{(40 - 10) \times 300}{(40 - 5) + (10 - 5)} = \frac{30 \times 300}{35} = 257.1 ) ml of 5% dextrose ( Va = \frac{(10 - 5) \times 300}{(40 - 5) + (10 - 5)} = \frac{5 \times 300}{35} = 42.85 ) ml of 40% dextrose Mix these volumes to obtain approximately 300 ml of 10% dextrose solution.  Would you like more information on this topic? Would you like to return to the main menu? Source: Clinical Reference Manual for Advanced Neonatal Care in Ethiopia | To prepare 10% dextrose IV fluid using 40% and 5% dextrose solutions, you can use the following method:  Calculate the Volume: Determine the total volume of 10% dextrose solution needed. Mix the Solutions: Use the formula for dilution:  [ C\_1V\_1 + C\_2V\_2 = C\_fV\_f ]  Where:  (C\_1) is the concentration of the first solution (40%). (V\_1) is the volume of the first solution. (C\_2) is the concentration of the second solution (5%). (V\_2) is the volume of the second solution. (C\_f) is the final concentration (10%). (V\_f) is the final volume. Example Calculation: If you need 1 liter (1000 ml) of 10% dextrose:  Use 250 ml of 40% dextrose. Use 750 ml of 5% dextrose. This will yield a 10% dextrose solution.  Would you like more information on the topic? Would you like to return to the home screen?  Source: SOP for Common Procedures: IV fluid preparation. |

<><><><><><><><><>