

N432 Newborn Worksheet

Name:

This assignment is due at 2359 CST Tuesday before you are assigned to the nursery.

Complete table (40 points) Include in-text citations in APA format. Attach Reference page.

Area	Normal Findings	Expected Variations
Skin	<p>The neonate's skin should be pink and warm with acrocyanosis. Milia are present on the bridge of the nose and chin. Lanugo is present on the back, shoulders, and forehead, which decreases with advancing gestation. Peeling or cracking is often noted on infants greater than 40 weeks gestation. Slate gray patches and hemangiomas such as salmon-colored path, nevus flammeus, and strawberry hemangiomas are developmental vascular abnormalities. Stork bites are found at the nape of the neck, on the eyelid, between the eyes, or on the upper lip. They deepen in color when the neonate cries, but they disappear within the first year of life. Nevus flammeus are purple-to-red colored flat areas that can be located on various portions of the body. These do not disappear. Strawberry hemangiomas are raised bright red lesions that develop during the neonatal period. They spontaneously resolve during early childhood. Erythema toxicum is a newborn rash (Durham, 2023).</p>	<p>Central cyanosis after the first 10 minutes of life is caused by reduced oxygen saturation and hypoxia. Circumoral cyanosis with pink mucous membranes may be benign. Jaundice within the first 24 hours is pathological. Pallor occurs with anemia, hypothermia, shock, or sepsis. Greenish or yellowish vernix indicates the passage of meconium during pregnancy or labor. Persistent ecchymosis or petechiae occurs with thrombocytopenia, sepsis, or congenital infection. Abundant lanugo is often seen in preterm neonates. Thin and translucent skin, and increased amounts of vernix caseosa, are common in preterm neonates. Nails are longer in neonates greater than 40 weeks. Pilonidal dimple which is a small pit or sinus in the sacral area at the top of the crease between the buttocks which can become infected later in life (Durham, 2023).</p>
Head	<p>Molding is present for a term neonate. The fontanelles are open, soft, intact, and slightly depressed, and they may bulge with crying. The anterior fontanel is diamond shaped, approximately 2.5-4 cm. The posterior fontanel is triangle</p>	<p>Fontanelles that are firm and bulging and not related to crying are a possible indication of increased intracranial pressure. Depressed fontanelles are a possible indication of dehydration. Bruising and laceration can be observed at the site of the fetal</p>

	shaped and is approximately 0.5-1 cm. These may be difficult to palpate due to excessive molding, and there are overriding sutures when there is excessive molding (Durham, 2023).	scalp electrode or vacuum extractor. The presence of caput succedaneum or cephalohematoma (Durham, 2023).
--	---	--

Fontanels	The fontanels are open, soft, intact, and slightly depressed, and they may bulge when crying. The anterior fontanel is diamond shaped and approximately 2.5-4 cm. The posterior fontanel is triangle shaped and is approximately 0.5-1 cm. It may be difficult to palpate and there may be overriding sutures when there is increased or excessive molding (Durham, 2023).	Fontanels that are firm and bulging and not related to crying are a possible indication of increased intracranial pressure. Depressed fontanels are a possible indication of dehydration (Durham, 2023).
Face	Eyes are equal and symmetrical in size and placement. The nose may be flattened or bruised related to the birth process. The lips, gums, tongue, palate, and mucous membranes are pink, moist, and intact. The top of each ear should be aligned with the external canthus of the eye. Milia are present on the bridge of the nose and chin (Durham, 2023).	Blue sclera is a possible indication of osteogenesis imperfecta. Nasal flaring can indicate respiratory distress, and large amounts of mucus drainage can lead to respiratory distress. A flat nasal bridge is seen with Down syndrome. Low-set ears are associated with genetic disorders such as Down syndrome, absent startle reflex is associated with possible hearing loss, and skin tags, dimpling, or other lesions may be associated with kidney or other abnormalities (Durham, 2023).
Eyes	Eyes should be equal and symmetrical in size and placement. The neonate can follow objects within 12 inches of the visual field. Edema may be present due to pressure during labor and birth or a reaction to eye prophylaxes. The iris is blue-gray or brown, and the sclera is white or bluish white. Subconjunctival hemorrhage may be present due to pressure during labor and birth. Pupils are equally reactive to light. Positive red-light and blink reflex are	Absent red-light reflex indicates cataracts. Unequal pupil reactions indicate neurological trauma. Blue sclera is a possible indication of osteogenesis imperfecta (Durham, 2023).

	observed. No tear production and transient strabismus and nystagmus are related to immature muscular control (Durham, 2023).	
--	---	--

Nose	The nose may be flattened or bruised related to the birth process. Nares should be patent. A small amount of mucus is present. Neonates primarily breathe through their noses (Durham, 2023).	Large amounts of mucus drainage can lead to respiratory distress. Nasal flaring is a sign of respiratory distress. A flat nasal bridge is seen with Down syndrome (Durham, 2023).
Mouth	Lips, gums, tongue, palate, and mucous membranes are pink, moist, and intact. Reflexes are positive. Dry lips are common after birth and Epstein's pearls are present. Rooting is when the neonate turns their head toward the direction of the stimulus, opens their mouth, and a sucking motion occurs when a finger or nipple is placed in their mouth (Durham, 2023).	Cyanotic or bluish mucous membranes are a sign of hypoxia. Dry mucous membranes are a sign of dehydration. Natal teeth, which can be benign or related to congenital abnormality. Thin philtrum may be indicative of fetal alcohol syndrome. Cleft lip or palate, which is a congenital abnormality in which the lip or palate does not completely fuse. Natal teeth are immature caps of enamel and dentin with poorly developed roots and usually only one or two teeth are present. These are usually benign but can be associated with congenital defects. They are often loose and are removed to decrease the risk of aspiration. Rooting and sucking may be absent if the neonate was recently fed. Prematurity or neurological defects may cause weak or absent responses for rooting and sucking (Durham, 2023).
Ears	The top of the pinna is aligned with the external canthus of the eye and without deformities, well-formed, and flexible. The neonate responds to noises, with positive startle signs. Hearing becomes more acute as Eustachian tubes clear and responds more readily to high-pitched vocal sounds (Durham, 2023).	Low-set ears are associated with genetic disorders such as Down syndrome. Absent startle reflex is associated with hearing loss. Skin tags, dimpling, or other lesions may be associated with kidney or other abnormalities (Durham, 2023).

Neck	The neck is short with skin folds and a positive tonic neck reflex may be present (Durham, 2023).	Webbing or large thick skin folds at the back of the neck is a possible indication of genetic disorders and absent tonic reflex is an indication of nerve injury (Durham, 2023).
Chest	The chest is barrel shaped and symmetrical. Breast engorgement may be present in both male and female neonates related to maternal hormones and resolves within a few weeks. Clear or milky fluid from nipples related to maternal hormones may be present (Durham, 2023).	Pectus excavatum (funnel chest) is a congenital abnormality. Pectus carinatum (pigeon chest) can obstruct respirations. Chest retractions are a sign of respiratory distress (Durham, 2023).
Breath Sounds	Lung sounds should be clear and equal. Scattered crackles may be detected during the first few hours after birth due to retained lung fluid, which will be absorbed through the lymphatics (Durham, 2023).	Persistent crackle, wheezes, stridor, grunting, paradoxical breathing, decreased breath sounds, or prolonged periods of apnea (>15-20 seconds) are signs of respiratory distress. Decreased or absent breath sounds are often related to meconium aspiration or pneumothorax (Durham, 2023).
Heart Sounds	Point of maximum impulse at the third or fourth intercostal space and S1 and S2 are present. Regular rhythm with some variability related to activity and respiratory changes. Murmurs in 30% of neonates, which disappear within two days of birth may be present. Brachial and femoral pulses are present and equal (Durham, 2023).	Dextrocardia, which is the heart on the right side of the chest or a displaced point of maximum impulse are abnormalities. Persistent murmurs indicate a persistent or return to fetal circulation (opening of shunts with blood flow through them), or congenital heart disease (CHD). Femoral pulses that feel weaker than brachial pulses may indicate CHD (Durham, 2023).
Abdomen	The abdomen is soft, round, protuberant, and symmetrical (Durham, 2023).	Asymmetrical abdomen indicates a possible abdominal mass. Hernias, or diastasis recti are more common in black neonates and usually resolve on their own within the first year (Durham,

		2023).
--	--	--------

Bowel Sounds	Bowel sounds are present but may be hypoactive for the first few days. Passage of meconium stool within 48 hours post birth (Durham, 2023).	Failure to pass meconium stool is often associated with imperforated anus or meconium ileus (Durham, 2023).
Umbilical Cord	The cord is opaque or whitish blue with two arteries and one vein and covered with Wharton's jelly. Skin around the umbilical cord should be assessed for infection and have no redness, swelling, drainage, or foul smell. The cord becomes dry and darker in color within 24 hours post birth and detaches from the body within 2 weeks (Durham, 2023).	One umbilical artery and vein is associated with heart or kidney malformation (Durham, 2023).
Genitals	<p>The female genitourinary will have a labia majora which covers the labia minora and clitoris. The labia majora and minora may be edematous. Blood-tinged vaginal discharge is related to the abrupt decrease of maternal hormones called pseudomenstruation. Whitish vaginal discharge is observed in response to maternal hormones. Urine may appear dark with urate crystals that appear as a red or rust-colored stain on the diaper. This is normal for the first few days of life. The urinary meatus is midline (Durham, 2023).</p> <p>The male genitourinary should have the urinary meatus at the tip of the penis, a large, pendulous, edematous scrotum with rugae present, and both testes are palpable in the scrotum. The neonate with</p>	<p>Female- prominent clitoris and small, visible labia minora are often present in preterm neonates. Ambiguous genitalia may require genetic testing to determine sex. No urination in 24 hours may indicate a possible urinary tract obstruction, polycystic disease, or renal failure (Durham, 2023).</p> <p>Male- Hypospadias is when the urethral opening is on the ventral surface of the penis. Epispadias is when the urethral opening is on the dorsal side of the penis. Undescended testes indicate cryptorchidism which may not be palpable in the scrotum. Hydrocele is an enlarged scrotum due to excess fluid. No urination in 24 hours may indicate a possible urinary tract obstruction, polycystic disease, or renal failure. Ambiguous genitalia may require genetic testing to determine sex. An inguinal hernia may be present</p>

	urinate within 24 hours with an uninterrupted stream and urine may appear dark with urate crystals that appear as a red, orange, pink, or rust-colored stain on the diaper, which is normal for the first few days of life (Durham, 2023).	(Durham, 2023).
--	---	------------------------

Anus	The anus should be patent with the passage of stool within 24 hours (Durham, 2023).	Imperforated anus requires immediate surgery. Anal fissures or fistulas may be present (Durham, 2023).
Extremities	Arms and legs should be symmetrical in length and equal in strength. There should be ten fingers and ten toes on hands and feet. Full range of motion is observed of all extremities with no clicks at the joints and equal gluteal folds. Palmer grasp, plantar grasp, Babinski, and stepping or dancing are present (Durham, 2023).	Polydactyly is extra digits which may indicate a genetic disorder. Syndactyly is webbed digits which may indicate a genetic disorder. Unequal gluteal folds or positive Barlow or Ortolani maneuvers are associated with congenital hip dislocation. Decreased range of motion or muscle tone indicates a possible birth injury, neurological disorder, or prematurity. Swelling crepitus, or neck tenderness indicates a possible broken clavicle, which can occur during the birthing process in neonates with large shoulders. Simian creases, short fingers, wide space between the big toe and second toe are common with Down syndrome. Absent or weak palmer grasp response indicates a possible CNS defect or nerve muscle injury. Weak or absent plantar grasp may indicate possible spinal cord injury. Absent or weak Babinski may indicate a possible neurological defect. Diminished response of stepping or dancing may indicate hypotonia (Durham, 2023).
Spine	C-shaped spine with no openings is felt or observed in vertebrae. No dimpling or sinuses are observed (Durham, 2023).	Vertebrae openings may indicate spina bifida. Dimpling or sinuses may indicate pilonidal cyst or a more serious neurological disorder (Durham, 2023).

For the following questions and tables, include in-text citations in APA format. Attach Reference page.

1. What safety and security measures are in place for newborns? (5 points)

Some safety and security measures for newborns include assessing vital signs and a physical assessment of the newborn every shift or according to the hospital policies. Delaying bathing for at least 6-24 hours as feasible or per hospital policy to decrease hypothermia and hypoglycemia rates per hospital policy. To prevent abduction, hospitals often take footprints, a photo, place armbands on the newborn, patient, and partner, instruct the patient and their partner to not allow anyone without proper identification to take the newborn out of the room or leave the newborn unattended in the room, and secure maternal-newborn units with locked doors. The nurse should provide education to the patient and their partner about sleep safety, to keep the side of the warmer up when not at crib side, to support the head and neck of the infant, and safety measures at home (Durham, 2023).

2. What are normal ranges for an infant's heart rate and respiratory rate? (2 points)

The normal range for an infant's heart rate is 110-160 bpm. The rate may increase to 180 bpm with crying and decrease to 90 bpm when sleeping. The normal range for respirations is 30-60 breaths per minute. The rate can increase when crying and decrease when sleeping (Durham, 2023).

3. What is the normal range and method for acquiring an infant's temperature? Why is this? (2 points)

The normal range for an infant's temperature is 97.7-99 degrees Fahrenheit or 36.5-37.2 degrees Celsius. Axillary is the preferred method to obtain an infant's temperature. Axillary is less invasive than a rectal temperature, but more accurate than an oral temperature (Durham, 2023). There is also a risk of perforating the rectum with the rectal method.

Complete Table (10 points)

Medication	Dosage	Administration Site	Possible side effects	Why is this administered ?
Vitamin K	Inject 0.5-1 mg of vitamin K within 1 hour of birth (Durham, 2023).	Vitamin K is administered shortly after birth via intramuscular injection. (Durham, 2023)	Common side effects include erythema, pain, and swelling at the injection site (Durham, 2023).	This is a preventative of vitamin K deficiency bleeding, previously called hemorrhagic disease in neonate (Durham, 2023)
Erythromycin	Apply 1 cm	The ointment	Edema and	This

n	bead of 0.5% strength ointment to both eyes (Durham, 2023).	is administered to the lower eyelid of each eye (Durham, 2023).	inflammation of eyelids are common side effects of erythromycin (Durham, 2023).	medication is a prophylactic treatment for gonococcal or chlamydial eye infections (Durham, 2023).
Hepatitis B	The dosage for the hepatitis B vaccine is 5 mcg (0.5 mL) for infants (U.S. Food and Drug Administration, 2023).	The preferred site for hepatitis B vaccines is the vastus lateralis (Durham, 2023).	The most frequently reported reactions among healthy infants and children were irritability, fatigue/weakness, diminished appetite, and rhinitis (U.S. Food and Drug Administration, 2023).	This vaccine is given as a hepatitis B preventative to neonates as recommended by the CDC. If a neonate has been exposed to hepatitis B, it is also recommended they receive hepatitis immune globulin within 12 hours of birth (Durham, 2023).

Complete Table (20 points)

Name of Test	Why is this test ordered?
Blood Glucose	The blood glucose test is ordered for high risk infants, such as diabetic mothers and SGA, LGA, preterm, and post-term infants (Durham, 2023).
Blood type and Rh Factor	Blood type and Rh factor are ordered to determine the blood type and Rh factor of the mother and infant. This will determine if a Coombs test is needed and if the patient will need RhGAM later in the pregnancy (Durham, 2023).
Coombs Test	The Coombs test, also known as the antiglobulin test, is ordered to identify isoimmunization.

	Patients found to be Rh negative should be rescreened in the second trimester and given RhoGAM at 26-28 weeks gestation and again if the infant is Rh positive (Durham, 2023).
Bilirubin levels	Bilirubin levels are ordered because hyperbilirubinemia occurs in most newborns (60% of term and 80% of preterm) and is usually physiological and benign. However, extreme pathological levels of bilirubin can be toxic and cause acute bilirubin encephalopathy or kernicterus, causing severe and permanent neurological damage (Durham, 2023).
Newborn Screen	Newborn screens are performed to assist the neonate's health-care provider to identify congenital and other common disorders not easily seen at birth. Newborn screening programs focus on disorder for which early detection and treatment improve health outcomes (Durham, 2023).
Hearing Screen	Hearing screens are ordered to detect hearing loss. Language development begins at birth as neonates are exposed to sounds and voices in their environment and early detection allows parents the opportunity to seek interventions that foster language development (Durham, 2023).
Newborn Cardiac Screen	Newborn cardiac screens are performed universally on all neonates because almost 3% of neonates are born with a birth defect, most often caused by congenital heart defects (CHDs). Critical congenital heart defects (CCHD) make up a small portion and can go undetected during the prenatal and immediate postnatal period as the neonate shows no signs or symptoms the first days after birth (Durham, 2023).

1. Identify 3 educational topics that should be discussed with caregivers of the infant. (6 points)
 - a. Safety information is vital for caregivers. The nurse should educate the parents about safe sleeping, car seat safety, accident prevention, temperature awareness for the infant, and shaken baby syndrome (Durham, 2023).
 - b. The nurse should educate the caregivers about appropriate care for the infant including soothing the child, swaddling, diapering, protecting the skin, cord care, bathing instructions, circumcision care for male infants, and clothing recommendation (Durham, 2023).

- c. **The nurse should instruct the caregivers when to call the pediatrician. Important instructions include an axillary temperature of 99 degrees Fahrenheit or 37.2 degrees Celsius, loss or change of appetite, refusal to eat, is lethargic or not as active as normal, does not cry or has a weak cry, has watery green stools, vomiting, decreased wet diapers, skin rash, sunken or bulging fontanel, and bleeding or has a foul odor from the circumcision site or cord site (Durham, 2023).**
2. Identify 2 potential nursing diagnoses for a newborn patient. **(10 points)**
 - a. **At risk for altered body temperature, hypothermia, related to decreased amounts of subcutaneous fat or large body surface (Durham, 2023).**
 - b. **At risk for infections related to tissue trauma or poor hand washing techniques by health-care providers and parents (Durham, 2023).**

Attach Reference page:

Durham, R. F., Chapman, L. & Miller, C. (2023). *Davis Advantage for Maternal-Newborn Nursing: Critical Components of Nursing Care* (4th ed., p. 481-573). F. A. Davis Company.

U.S. Food and Drug Administration. (2023). *Recombivax HB (hepatitis B vaccine, recombinant) [package insert]*. U.S. Department of Health and Human Services.
<https://www.fda.gov/files/vaccines%2C%20blood%20&%20biologics/published/package-insert-recombivax-hb.pdf>