

N432 Newborn Worksheet

Name: Tinlee Shepherd

Area	Normal Findings	Expected Variations
Skin	<p>The color of the skin should be pink with possible acrocyanosis. The temperature of the skin should be warm. There will be milia present on the nose and chin and lanugo present on the back, shoulders, and forehead. Peeling or cracking of the skin is common as well as the presence of stork bites or erythema toxicum which will all eventually disappear. Nevus flammeus are also normal findings but these do not go away as the infant ages (Durham et al., 2023).</p>	<p>Central cyanosis noted after the first 10 minutes of life may be indicative of reduced oxygen saturation and hypoxia. Jaundice within the first 24 hours of life is usually pathological. Skin that appears abnormally pale may be a sign of anemia, hypothermia, shock, or sepsis. Vernix that is green or yellow in color is an indication that meconium was passed during pregnancy or labor. Persistent bruising or petechiae may be an indication of thrombocytopenia, sepsis, or a congenital infection. Preterm neonates may present with an abundance of lanugo, thin or translucent skin, and increased amounts of vernix. Nail length will appear longer in neonates of more than 40 weeks gestation. A small pit or sinus in the sacral area that is referred to as a pilonidal dimple is noted in some infants. This area can become infected later in life (Durham et al., 2023).</p>
Head	<p>Molding is present. There are overriding sutures when molding is increased. Head circumference is 32-36cm (Durham et al., 2023).</p>	<p>Laceration and bruising that is noted at the site of the fetal scalp electrode or vacuum extractor. The presence of caput succedaneum or cephalohematoma is apparent upon visualization or palpation. Head circumference is below the 10th percentile or above the 90th percentile (Durham et al., 2023).</p>
Fontanels	<p>Fontanels will be open, soft, intact, and slightly depressed. Fontanels may bulge when the infant cries. The anterior fontanel should be diamond shaped and approximately 2.5-</p>	<p>Fontanels that are firm or bulging when the infant is not crying may be indicative of increased intracranial pressure. If the fontanels are significantly depressed the infant may be</p>

	4 cm. The posterior fontanel is a triangle shape that is approximately 0.5-1cm (Durham et al., 2023).	dehydrated (Durham et al., 2023).
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Face	Facial features are symmetrical and without deformity (Gantan, 2023).	Dysmorphic or asymmetrical features may indicate an underlying disease or disorder (Gantan, 2023).
Eyes	The eyes should be equal and symmetrical bilaterally in relation to their size and placement. The infant should be able to follow an object within 12 inches of the visual field. The iris should either be blue-grey or brown in color. The pupils should be round and reactive to light. Positive red-light reflex and blink reflex should both be present. There should be no tear production present (Durham et al., 2023).	Lack of red-light reflex indicates cataracts. Unequal pupil reactions may be associated with a neurological trauma. Blue sclera may indicate osteogenesis imperfecta (Durham et al., 2023).
Nose	The infant's nose may be flattened or bruised from birth. The nares should be patent. A small amount of mucus is present. The infant primarily breathes through the nose (Durham et al., 2023).	Large amounts of mucus drainage present may lead to respiratory distress. A flat nasal bridge may be associated with Down syndrome. Flaring of the nares may be indicative of respiratory distress (Durham et al., 2023).
Mouth	The lips, gums, tongue, palate, and mucous membranes are pink, moist, and intact. Reflexes are positive. Lips may be dry following birth. Epstein's pearls may or may not be present (Durham et al., 2023).	Mucous membranes that are blue in color may be indicative of hypoxia. Dry mucous membranes may be related to dehydration. Natal teeth may be related to a congenital abnormality but do not confirm the presence of one. Thin philtrum may indicate fetal alcohol syndrome. A cleft lip or palate may be present upon inspection (Durham et al., 2023).
Ears	The top of the infant's ears should be in line with the external canthus of the eye. The ears should be without deformities, well formed, and flexible. The infant should	Ears that are low set on the head may indicate a genetic disorder such as Down syndrome. Absence of a startle reflex may be associated with hearing loss. The presence of skin tags, dimpling, or

	respond to noise stimuli as well as have positive startle signs (Durham et al., 2023).	other lesions indicate a possible kidney issue or other abnormality (Durham et al., 2023).
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Neck	The neck will be short with skin folds. A positive tonic neck reflex may be present (Durham et al., 2023).	Webbing or large, thick skin folds on the posterior neck may be indicative of a genetic disorder. Negative tonic neck reflex is an indication of nerve injury (Durham et al., 2023).
Chest	Chest circumference should be 30.5-33 cm or 2-3 cm smaller than the head circumference. The chest should be symmetrical and barrel shaped. Breast engorgement may be noted in both male and female infants. Clear or milky discharge from the nipples may be present (Durham et al., 2023).	Funnel chest is a congenital abnormality. Pigeon chest may obstruct the infant's respirations. The presence of chest retractions is a sign of respiratory distress (Durham et al., 2023).
Breath Sounds	The infant should take 30-60 unlabored breaths per minute. Periodic breathing with no change in skin color may be noted. Diaphragmatic and abdominal breathing visualized upon inspection. Breathing rate increases during episodes of crying and decreases when the infant is sleeping (Durham et al., 2023).	Periods of apnea especially with notation of skin color change indicate respiratory distress. Increased respiratory rate may be related to sepsis, pain, hypothermia, hypoglycemia, or respiratory distress syndrome. Respiratory rates under 30/minute may be related to maternal analgesia or anesthesia given during labor. Crackles, wheezes, stridor, grunting, and paradoxical breathing are signs of respiratory distress. Decreased or absent breath sounds are often associated with meconium aspiration or pneumothorax (Durham et al., 2023).
Heart Sounds	The point of maximal impulse should be palpable at the third or fourth intercostal space. S1 and S2 are present during auscultation. Regular rhythm is noted with slight variability related to activity and respiratory changes. Brachial and femoral pulses are present	The heart is located on the right side of the infant's chest. Displaced point of maximal impulse is associated with an enlarged heart. Femoral pulses that feel weaker than brachial pulses upon palpation may indicate congenital heart disease

	and equal bilaterally (Durham et al., 2023).	(Durham et al., 2023).
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Abdomen	The infant's abdomen is soft, round, protuberant, and symmetrical. Meconium stool passage within 48 hours post birth. The skin around the umbilical cord should have no redness, swelling, drainage, or foul smell (Durham et al., 2023).	An asymmetrical abdomen may indicate an abdominal mass. Hernias or diastasis recti are most commonly present in black neonates and will usually resolve without intervention. Failure to pass meconium stool is often associated with a possible imperforated anus or meconium ileus (Durham et al., 2023).
Bowel Sounds	Bowel sounds are present but may be hypoactive for the first few days of life (Durham et al., 2023).	Absence of bowel sounds may indicate a possible obstruction or other underlying bowel issue (Durham et al., 2023).
Umbilical Cord	The umbilical cord is opaque or whitish blue in color. Two arteries and one vein should be present and covered in Wharton's jelly. The umbilical cord should become dry and darker in color within 24 hours after birth and will detach from the infant's body within two weeks (Durham et al., 2023).	The presence of only one umbilical artery and vein is often indicative of a heart or kidney malformation (Durham et al., 2023).
Genitals	<p>Female: Labia majora covers the labia minora and clitoris. Labia majora and minora may be edematous. Blood tinged or white vaginal discharge may be noted. Urine may appear rust-colored during the first few days after birth. The urinary meatus should be midline. The infant should urinate within the first 24 hours of life (Durham et al., 2023).</p> <p>Male: The urinary meatus should be located at the tip of the penis. The scrotum should be large, pendulous, and edematous with ridges or</p>	<p>Female: Prominent clitoris and small, visible labia minora are often noted in preterm neonates. Ambiguous genitalia may require genetic testing to determine biological sex. No urination within the first 24 hours may be associated with urinary tract infection, obstruction, polycystic disease, or renal failure (Durham et al., 2023).</p> <p>Male: The urethral opening is located on the upper or lower surface of the penis. The testes are unable to be palpated in the scrotum means that the testes have not descended. The scrotum may appear enlarged due to the</p>

	<p>creases present. Both testes should be palpated inside the scrotum. The infant should urinate within the first 24 hours of life with an uninterrupted stream. Urine may appear rust-colored during the first few days after birth (Durham et al., 2023).</p>	<p>accumulation of excess fluid. Ambiguous genitalia may require genetic testing to determine biological sex. No urination within the first 24 hours may be associated with urinary tract infection, obstruction, polycystic disease, or renal failure (Durham et al., 2023).</p>
Anus	<p>The anus is patent. Stool is passed within 24 hours (Durham et al., 2023).</p>	<p>Anus that is imperforated. Anal fissures or fistulas are present upon inspection (Durham et al., 2023).</p>
Extremities	<p>Arms will be symmetrical and equal in length and strength bilaterally. Legs will be symmetrical and equal in length and strength bilaterally. The infant will have 10 fingers and 10 toes. Full range of motion is observed in all extremities. No clicks present at the joints. Gluteal folds are equal (Durham et al., 2023).</p>	<p>More than 10 fingers or 10 toes may indicate a genetic disorder. Webbed digits may also indicate a genetic disorder. Gluteal folds that are unequal or positive Barlow and Ortolani maneuvers are indicative of congenital hip dislocation. Decreased range of motion in any of the extremities may be related to a birth injury, a neurological disorder, or prematurity. Simian creases, short fingers, wide space between the big toe and second toe are commonly associated with Down syndrome (Durham et al., 2023).</p>
Spine	<p>Spine is C-shaped with no openings palpated or visualized in vertebrae. No dimpling or sinuses are observed (Durham et al., 2023).</p>	<p>Openings in the vertebrae may indicate spina bifida. Sinuses or dimpling may indicate pilonidal cyst or a neurological disorder (Durham et al., 2023).</p>

Complete table (40 points)

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

Placing armbands on mother, baby, and mother's partner that include an identification number is often common practice in the hospital setting. Placing infant security tags and utilizing hospital abduction systems are preventative measures to ensure the infant is not taken off the hospital property by unauthorized individuals. Parental education on sleep safety and other discharge topics promotes the safety and well-being of the infant in the hospital and after the family has returned home (Durham et al., 2023).

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

The infant's heart rate is normally 110-160 beats per minute. The heart rate may increase to 180 bpm when the infant is crying and decrease to 90 bpm when the infant is sleeping. The normal rate of respirations is 30-60 unlabored breaths per minute. Again, this rate may increase during crying and decrease during sleep (Durham et al., 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 97.7-99.0 F when taken axillary. Axillary temperatures are preferred because they are the least invasive but rectal temperatures are considered more accurate (Durham et al., 2023).

Complete Table (10 points)

Medication	Dosage	Administration Site	Possible side effects	Why is this administered?
Vitamin K	The dose is 0.5-1.0 mg (Durham et al., 2023).	Vitamin K is administered intramuscularly in the thigh (Durham et al., 2023).	Erythema, pain, and swelling of the injection site are possible side effects of Vitamin K (Durham et al., 2023).	This is administered to prevent vitamin K deficiency bleeding (Durham et al., 2023).
Erythromycin	The dose is a 1 cm bead (Durham et al., 2023).	Erythromycin is administered on the lower eyelid of each eye (Durham et al., 2023).	Edema and inflammation of eyelids are possible side effects of Erythromycin (Durham et al., 2023).	This is administered for prophylactic treatment of gonococcal or chlamydial eye infections (Durham et

				al., 2023).
Hepatitis B	The dose is 0.5 mL (Durham et al., 2023).	The Hepatitis B vaccine is administered intramuscularly in the thigh (Durham et al., 2023).	Redness or swelling of the injection site is a possible side effect of the Hepatitis B vaccine (Durham et al., 2023).	This is administered for the prevention of Hepatitis B contraction (Durham et al., 2023).

Complete Table (20 points)

Name of Test	Why is this test ordered?
Blood Glucose	Blood glucose is assessed to monitor for hypoglycemia and hyperglycemia. Hypoglycemia is a common complication during the transitional time especially in infants with other known complications (Durham et al., 2023).
Blood type and Rh Factor	Blood type and Rh factor testing are ordered to assess the risk for Rh incompatibility and prevention of Rh disease (Durham et al., 2023).
Coombs Test	The Coombs test is performed to determine the presence of hemolytic disease of the newborn related to Rh factor or ABO incompatibility (Durham et al., 2023).
Bilirubin levels	Bilirubin levels are important to determine due to the toxicity of extremely high levels. Most newborns are born with hyperbilirubinemia with little to no complications, but in some cases high levels may cause acute bilirubin encephalopathy or kernicterus (Durham et al., 2023).
Newborn Screen	A newborn screen is performed to assist in the early identification of congenital or other disorders not easily visualized at birth (Durham et al., 2023).
Hearing Screen	Hearing screenings for neonates are ordered to assess for hearing loss in infants usually before discharge. This screening offers the opportunity for parents to seek out early interventions for hearing loss to prevent delays in language development (Durham et al., 2023).
Newborn Cardiac Screen	The cardiac screen is ordered to assist in the identification of congenital heart defects. The test ensures that the infant's cardiac functioning is within normal limits (Durham et al., 2023).

1. Identify 3 educational topics that should be discussed with caregivers of the infant. (6 points)

Three educational topics that should be discussed with caregivers of the infant before discharge include proper bathing, safe sleep techniques, and overall safety regarding car seats and the home environment (Durham et al., 2023).

2. Identify 2 potential nursing diagnoses for a newborn patient. (10 points)

Impaired gas exchange related to the transition from fetal to neonatal circulation, cold stress, or airway obstruction as evidenced by cyanosis and low blood oxygen levels (Durham et al., 2023).

Decreased body temperature related to decreased amounts of subcutaneous fat, large body surface, or improper clothing as evidenced by lethargy and temperature below 97.7F. (Durham et al., 2023).

References

Durham, R. F., Chapman, L., & Miller, C. S. (2023). *Davis advantage for maternal-newborn nursing: Critical components of nursing care*. F.A. Davis Company.

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