Subject: Gestational Age Assessment

Policy: An RN or LPN may perform a gestational age assessment of the neonate, between 1-4 hours of age, utilizing the Ballard Scoring System.

Purpose: A series of physical characteristics and neuromuscular maturity scales designed to accurately define gestational age of the neonate.

Equipment List:
Newborn maturity rating and classification form, pen, pencil.

CONTENT:

Procedure Steps
1. Wash hands and glove.

2. Using 2 identifiers, identify correct infant. Place infant in supine position.
3. Scores patient by placing an X in the appropriate square under the neuromuscular maturity and physical maturity categories.
4. Posture: Observe infant’s posture with infant lying in supine position in a quiet state.
5. Square Window (wrist): Elicit by flexing the baby’s hand toward the ventral forearm until resistance is felt.
6. Arm Recoil: While the baby is in supine position, completely flex both elbows and hold for 5 sec., then extend arms down at baby’s side and release them. The angle and speed of arm recoil is noted.
7. Popliteal Angle: Lay infant flat on his back. Thigh is flexed onto abdomen, keeping pelvis flat on bed and place index finger of other hand behind the baby’s ankle to extend the lower leg until resistance is met. The angle formed is then measured.

Key Points
1a. To prevent cross contamination
b. Gloves to be worn when handling newborn before admission bath for universal precautions.
4. You are noting the amount of flexion or extension of infant’s extremities.
5. The angle formed at the wrist is measured.
6. This tests flexion development. This assessment is best elicited after the first hour of birth. Deep sleep and fatigue decreases arm recoil. Assessment of arm should be done bilaterally to rule out brachial palsy.
7a. Be sure to keep pelvis flat on bed.
b. This assessment may not be accurate in infants with breech presentation until resolution of leg positioning.
8. Scarf Sign: Place infant supine. Take baby’s hand in your fingers and draw baby’s arm across neck towards opposite shoulder until resistance is met. Note location of elbow in relation to midline of chest.

9. Heel to Ear: Place baby in supine position. Grasp the infant’s foot at base of the toes with thumb and forefingers and gently draw the foot towards the ear on the same side until resistance is felt (or until foot slips out of fingers.) Both the proximity of the foot to the ear and the degree of knee extension are noted.

10. Skin: Observe skin for texture and opacity, thickness and color. Mark description that most closely matches your observations.

11. Lanugo: Observe baby for amount of lanugo present on body and mark description that most closely matches your observations.

12. Plantar Surface: Observe amount of plantar creases by looking at soles of feet. Mark description that most accurately matches your the observations.

13. Breast: The areola is observed and breast bud tissue is gently palpated by applying the fore finger and middle finger to the breast area and measuring in mm.

14. Eye/Ear: Observe ear for shape and palpate for amount of cartilage present. To test for recoil, hold top and bottom of the pinna together with forefinger and thumb and then release; or fold the pinna of the ear forward against the side of the head and release and observe for response.


17. Upon completing assessment, add together the numbers scored and compare with maturity rating scale to determine gestational age.

18. Fill out scoring section of Newborn Maturity Rating and Classification form and sign.
19. On back side of Maturity Rating and Classification Form, convert weight to grams and length and head circumference to centimeters and plot on graph for weeks calculated.

20. Note where marks fell on chart. Classify baby as SGA, AGA or LGA based on where mark falls on weight chart, and sign.

21. If gestational age results are not within 2 weeks of the expected gestational age, repeat at 24 hours of age.

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Authorized by: ________________________________

Chief Nursing Officer
Date

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