

All skill guidelines are adapted from *Fundamentals of Nursing* (9<sup>th</sup> Ed.) Potter and Perry (2017).

## Maternal Health Competencies - Vital Signs and Anthropometric Measurements

### ***Manual/Automated Blood Pressure***

1. Explain procedure to patient
2. Gather equipment
  - a. Stethoscope
  - b. Sphygmomanometer with appropriate-sized cuff
    - i. Width of cuff encircles at least 40% of the arm
    - ii. Length of the bladder encircles at least 80% the circumference of the arm
  - c. Access to a watch/clock with second hand
3. Perform hand hygiene prior to engaging with patient
4. Place patient in a comfortable position with feet flat on floor and arm relaxed but supported and at the level of the heart. Before cuff is applied, squeezes out excess air
5. Expose extremity fully by removing constricting clothing. Cuff may be placed over shirt sleeve as long as stethoscope rests on skin of antecubital space
6. Adjust cuff by placing over the inner aspect of the arm, approximately 1-1½ inches above the antecubital space
7. Center arrows marked on the cuff along the brachial artery
8. Strap Velcro sleeve band and secures firmly
9. Place diaphragm of stethoscope over brachial artery
10. Close valve of pressure bulb clockwise until tight
11. Quickly inflate cuff to 30mm Hg above palpated systolic pressure (note point at which pulse disappears)
12. Slowly release pressure bulb valve and allow needle of manometer gauge to fall at rate of 2-3 mm hg/sec.
13. Note point on manometer when first clear sound is heard. Sound slowly increases in intensity
14. Continue to deflate cuff, noting point at which muffled or dampened sound appears
15. Continue to deflate cuff gradually, noting point at which sound disappear. Listen for 10-20 mm Hg after last sound and allow remaining air to escape quickly
16. Evaluate the blood pressure in relation to baseline data, normal range for age and health status; relationship to pulse and respiration
17. If agency uses automated blood pressure measurement equipment, demonstrate correct use of equipment
18. Clean and disinfect equipment after each use
19. Document findings in the patient's record
20. Perform hand hygiene
21. Apprise provider of abnormal results (per clinical policy)

### *Temperature*

1. Explain procedure to patient
2. Perform hand hygiene prior to engaging with patient
3. Mercury-in-glass thermometer use is no longer standard of care. **Use of them should be discontinued effective immediately in any healthcare setting (including health departments) with proper disposal due to the environmental hazard of mercury.**
4. Types of thermometers for use (electronic or disposable)
  - a. Rechargeable battery-powered display unit with a temperature-processing probe covered by a disposable probe cover
    - i. Apply disposable probe cover if indicated
    - ii. Place probe in posterior sublingual pocket lateral to center lower jaw and request patient to close their mouth/lips around
    - iii. Sound signals and reading displayed when peak temperature has been measured
  - b. Tympanic
    - i. Slide disposable speculum cover over otoscope-like lens tip until it locks into place
    - ii. Pull ear pinna backward, up and out
    - iii. Fit speculum tip snugly into canal and do not move
    - iv. Sound signals and reading displayed when the peak temperature has been measured
  - c. Superficial temporal artery
    - i. Ensure that forehead is dry
    - ii. Place flush on patient's forehead above eyebrow
    - iii. Press red scan button and slowly slide across the forehead and just behind the ear.
    - iv. Peak temperature occurs when clicking sound during scanning stops.  
Read displayed on unit
5. Document findings in the patient's record
6. Perform any hygiene
7. Clean and disinfect thermometer after each use
8. Apprise provider of abnormal results (per clinical policy)

### *Radial Pulse*

1. Explain procedure to patient
2. Access a watch/clock with a second hand
3. Perform hand hygiene prior to engaging with patient
4. Gently bend patient's elbow to a comfortable angle with wrist extended and palm up
5. Identify radial pulse on the lateral aspect of the wrist
6. Exert slight pressure with fingertips, do not use thumb

7. Count the pulse for 30 seconds and multiply by two. If pulse is irregular, counts for 1 full minute
8. Assess
  - a. Rate - # counted and then calculated
  - b. Rhythm - regular, irregular
    - i. Dysrhythmia described as regularly irregular or irregularly irregular
  - c. Strength - [Bounding (4); Full or Strong (3); Normal or Expected (2); Diminished or Barely Palpable (1); Absent (0)]
  - d. Equality - Assess pulses on both sides of the peripheral vascular system, comparing characteristics of each. Assess all symmetrical pulses simultaneously except for the carotid pulse.
9. Evaluate rate and rhythm in relation to baseline data or expected range for age of patient
  - a. Adult: 60 - 100
10. Document findings in the patient's record
11. Perform hand hygiene
12. Apprise provider of abnormal results (per clinical policy)

### ***Respiratory Rate***

1. Access to watch/clock with a second hand
2. Perform hand hygiene prior to engaging with patient
3. Best practice is to assess the respiratory rate directly after assessing the pulse without making the patient aware
4. Observe/assess the rate, depth, rhythm and character of respirations
  - a. Rate - # observed a full inspiration and expiration for 1 full minute
  - b. Depth - Deep or Shallow, Normal or Labored
  - c. Rhythm - Observation of contraction and relaxation of the diaphragm
  - d. Abnormal respirations or difficulty with respirations may include pursed lips, nasal flaring, retractions, use of accessory muscles, wheezing, tachypnea, dyspnea, etc.
5. Evaluate the rate in relation to the baseline data or normal range for age, relationship to other vital signs, respiratory rate, depth, rhythm, character in relation to baseline data and health status
  - a. Adult: 12 - 20
6. Document findings in the patient's record
7. Apprise provider of abnormal measurement (per clinical policy)

### ***Height***

1. Explain procedure to patient
2. Assist patient to stand with back against stadiometer or measuring device; request patient to remove shoes

3. Instruct patient to stand erect, arms down to each side and look straight ahead
4. Measure to the nearest  $\frac{1}{8}$  inch
5. Document findings in the patient's record

### ***Weight***

1. Explain procedure to patient
2. Instruct patient to remove outerwear, purses, shoes, heavy objects from pockets, etc.
3. Balance/zero the scale
4. Assist patient to stand on scale- instructs patient to center feet on scale, stand erect, and avoid movement
5. Measure weight to the nearest pound or per clinical policy
6. Document findings in the patient's record
7. Apprise provider of significant findings (per clinical policy)

### ***Body Mass Index (BMI)***

1. Use the patient's height and weight to determine their BMI utilizing
  - a. Calculation of BMI - Dividing patient's weight in kilograms by height in meters squared:  $\text{weight (kg) divided by height}^2 (\text{m}^2)$  or
  - b. Agency approved chart/calculator tool
2. Results for adults should be documented using language recommended by the World Health Organization's (WHO):
  - a. Below 18.5 -> Underweight
  - b. 18.5 - 24.9 -> Normal weight
  - c. 25.0 - 29.9 -> Pre-obesity
  - d. 30.0 - 34.9 -> Obesity Class I
  - e. 35.0 - 39.9 -> Obesity Class II
  - f. Above 40 -> Obesity Class III
3. Document findings in the patient's record
4. Apprise provider of significant results (per clinical policy)

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