COBB COUNTY COMMUNITY SERVICES BOARD
DOUGLAS COUNTY COMMUNITY SERVICES BOARD

Policy # 9020
Vital Signs Measurement - (Temperature, Pulse, Respirations, and Blood Pressure)

Origination Date: February 1998
Revision Date: June 2004; March 27, 2006; November 11, 2008; January 28, 2009; February 5, 2009, September 9, 2013, July 28, 2016

Approved:
Althea D. Whitley, RN, Director of Nursing  Bryan G. Stephens, Interim CEO

PURPOSE:
To ensure that vital signs are taken as ordered by physician and/or as determined needed by the nurse.

PROCEDURE:

1. The staff member responsible for taking vital signs documents them in the clinical record or EMR (per Program requirement) as soon as practical after taking them, usually on the Vital Signs Flow Sheet (Attachment A).
2. Vital signs are measured: during nursing assessments, as ordered by physician, by program protocol or when indicated by the clinical condition of client.
3. **ANY OF THE FOLLOWING VITAL SIGN READINGS WILL BE REPORTED TO THE NURSE IMMEDIATELY:**

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Thresholds</th>
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<tbody>
<tr>
<td>PULSE</td>
<td>Greater than 100 beats per minute or less than 60 beats per minute, or any deviation of 20 beats per minute or change in regularity of pulse rate.</td>
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<tr>
<td>BLOOD PRESSURE</td>
<td>Greater than 130/85 or less than 90/60 (systolic not between 90 and 140 and diastolic not between 60 and 90). A reading of 20 mm Hg above the client’s typical systolic pressure. A reading of 20 mm Hg below the client’s typical diastolic pressure.</td>
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<td><strong>DD Clients:</strong> Systolic pressure less than 90 OR greater than 140. Diastolic pressure less than 60 or greater than 90</td>
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<tr>
<td>TEMPERATURE</td>
<td>Any elevation of temperature above 99.0°F.</td>
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<td><strong>DD Clients:</strong> Any elevation of temperature above 100.5°F</td>
</tr>
<tr>
<td>RESPIRATIONS</td>
<td>Respirations below 12 per minute or above 26 per minute</td>
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4. **BLOOD PRESSURE:**
   Equipment needed: Blood pressure cuff, stethoscope, and alcohol wipe. The purposes of checking blood pressure are to obtain information on the client’s physical condition, to aid in diagnosis and treatment, and to check on the effects and side effects of medications. Systolic pressure represents
the greatest force exerted by the blood against the walls of the artery and is the first beat heard as the cuff is deflated. Diastolic pressure represents the point of greatest relaxation of the artery wall and is the last regular beat heard. The left arm is preferred to the right arm, as it is closest to the heart. For consistency of reading, always use the left arm unless there is a contraindication in a specific client to using the left arm; in that instance, consistently use the right arm for blood pressure reading. Blood pressure may be altered if the client has been active physically, upset emotionally, or has a physical illness.

a. Explain the procedure to the client.

b. Position the client with arm extended and supported. Apply the deflated B/P cuff snugly with the arrow pointed toward the brachial artery. If there is no arrow, position the middle of the balloon over the brachial artery.

c. Wrap the completely deflated cuff snugly and evenly around the upper arm, one or two inches above the elbow joint and secure.

d. Position the dial so that it is in a straight line of vision for accurate reading.

e. Feel the brachial artery by pressing your fingers on the inner aspect of elbow joint.

f. Clean the stethoscope and earpieces with alcohol sponge; then adjust the earpieces properly and insert in ears.

g. Place the diaphragm of the stethoscope with a minimum of pressure over the brachial artery at the bend of the elbow in such a way that it does not come in contact with the cuff.

h. Close air valve on bulb and inflate cuff until the dial registers at approximately 180. If it is known that a client has high blood pressure, or has low blood pressure, inflate the cuff 20 mm above expected systolic pressure.

i. Open air valve slowly enough to be able to read the dial accurately at the place where you hear the first sound.

j. Note position of the hand on the dial when you hear the first regular thumping sound. Consider this the systolic reading.

k. Take the diastolic reading when you hear the last full regular thumping sound (that is, when there is a distinct change in the tone of the sound.)

l. Deflate the cuff as quickly as possible and remove it. Do not leave the cuff inflated for more than 1 or 2 minutes at a time. Be concerned about the comfort of the client as well as the accuracy of the reading.

m. Record readings immediately.

n. Roll deflated cuff evenly and replace in the zipper case.

o. Wipe earpieces and diaphragm of stethoscope with alcohol sponge and return to proper place.

p. Report any gross changes or abnormalities.

q. If there is a doubt about the B/P reading, deflate the cuff completely, wait a few minutes and retake, explaining to the client that you are re-checking the reading.

r. When recording blood pressure readings, record as 120/78. Document from which arm blood pressure reading is taken and whether client was sitting, standing or lying. Note in progress notes any significant change in blood pressure, any unusual reaction to procedure, and if physician/nurse was contacted.

5. **TEMPERATURE:**

Equipment needed: Single Use Disposable Thermometer TempaDots or IVAC Thermometer and Sheath or Tympanic Membrane Scanner.

Temperature is taken to check and record the amount of heat in the body. The purpose is to obtain information on the client’s physical condition, to aid in diagnosis and treatment, and to facilitate
appropriate care. Stay with client at all times during procedure. Record reading immediately. Temperature is recorded in 10ths of a degree and written as: 99.2°.

a. **Single Use Disposable Thermometer**
   1. Remove cover from TempaDot.
   2. Place thermometer under client’s tongue and instruct client to keep lips closed.
   3. Leave thermometer in mouth for at least three minutes. Pulse and respiration may be taken at the same time.
   4. Remove thermometer and discard plastic sheath or thermometer.

b. **IVAC Thermometer with Electron Probe**
   1. Explain procedure to the client.
   2. Wash hands. Apply disposable cover to probe.
   3. Place covered probe under the client’s tongue. Have client close his/her mouth around probe cover without biting down on it with his/her teeth. Wait until the IVAC machine either lights up the reading or sounds alarm. When it does light up or alarms, a numerical reading will print out on the IVAC itself.
   4. Remove the probe from client’s mouth before removing cover then eject cover. Discard probe cover after use.
   5. The entire IVAC unit should be cleansed daily with 70% isopropyl alcohol or a disinfectant spray when thermometer is used.

c. **Tympanic Membrane Scanner**
   Equipment needed: Tympanic membrane scanner, disposable otic probe covers and alcohol swab.
   1. Explain procedure to the client.
   2. Wash hands.
   3. Place a disposable otic cover over tip of scanner.
   4. Place tip of scanner into the ear canal and click light sensor. Wait a few seconds and check reading on the bottom of the scanner.
   5. Remove the soiled otic probe cover from scanner tip. Discard.
   6. Clean outside of Tympanic Membrane Scanner every 24 hours with 70% isopropyl alcohol or a disinfectant spray when thermometer is used.

**DD Program** - Axillary temperatures may be obtained in DD when the client is unable to keep their lips closed or refuse to leave the probe in their mouth.

6. **PULSE:**

   Equipment needed: Clock/watch with a second hand.
   Pulse is the expansion and contraction of an artery with the heartbeat. It must be felt by first and second fingers; never use thumb (one’s own pulse will be felt in thumb.) The purpose of checking the pulse is to obtain information on the client’s physical condition, to aid in diagnosis and treatment, and to facilitate appropriate care.

   Pulse must be assessed for:
   - Quality - strong, pounding, thready,
   - Rate per minute - for adults, normal is usually 60-80 a minute, and
   - Rhythm - regular or irregular.

   Areas where the pulse can be felt are:
   - Radial pulse: wrist (thumb side)
   - Temporal pulse: temples
Carotid pulse: side of the neck
Femoral pulse: groin area
Dorsal pulse: ankle area
Apical Pulse: apex of the heart

a. **Apical Pulse:**
   1. Taken on all clients before administration of digitalis or Quinidine.
   2. Client should be at rest. Eliminate extraneous outside noises.
   3. Place the stethoscope on the client’s chest over the apex of the heart. The impulse of the heart against the chest wall can be heard in the space between the 5th and 6th ribs about 3 inches to the left of the median line and slightly below the nipple.
   4. Record result immediately.

b. **Radial Pulse**
   1. Have the client assume a supine or sitting position. Ensure arm is free of any constrictions. If the client is supine, place his arm across his lower chest with wrist extended and palm down. If the client is sitting, bend his elbow 90 degrees and support his lower arm on the chair or on the examiner’s arm. Extend wrist with palm down.
   2. Place the first two or three fingers of your hand along the radial artery and lightly compress against the radius.
   3. Obliterate the pulse initially, and then relax pressure so the pulse is easily palpable.
   4. When the pulse can be felt regularly, use the watch’s second hand and begin to count the rate, starting with zero, and then 1, and so on.
   5. If the pulse is regular, count for 15 seconds and multiply the total by 4.
   6. If the pulse is irregular count for a full minute.
   7. Assess the rhythm and strength of the pulse and the elasticity of the arterial wall.
   8. Assist the client to a comfortable position.
   9. Record results immediately including all characteristics of pulse in clinical record or flow sheet.

7. **RESPIRATION:**
   Equipment needed: Clock/Watch with second hand
   Respiration is the act by which air is drawn into the lungs. The purpose of checking respirations is to obtain information on the client’s physical condition, to aid in diagnosis and treatment, and to facilitate appropriate care.
   a. Inspiration and expiration is counted as one respiration.
   b. Respirations are to be counted for one full minute. Observe for quality, rate and rhythm.
   c. Note the depth of the client’s respirations and any unusual characteristics.
   d. Any unusual or abnormal respirations must be reported immediately to the nurse.
   e. Since respiratory movements are partly voluntary, avoid making the client conscious of the fact that you are counting respirations.
   f. Remember to keep client at ease. This is most easily done by maintaining a position of fingers on pulse for two full minutes, during one minute note the pulse, and in the other minute note the respiration.
   g. Respiration may be counted by watching the rise and fall of the chest wall or by feeling with hand on the back for one full minute.
   h. Record result in clinical record and include detail of any unusual findings.
VITAL SIGN FLOW SHEET (DD)
ANY OF THE FOLLOWING VS READINGS WILL BE REPORTED TO THE NURSE IMMEDIATELY:
- PULSE: LESS THAN 60 OR GREATER THAN 100
- BLOOD PRESSURE: SYSTOLIC LESS THAN 90 OR GREATER THAN 140;
  DIASTOLIC LESS THAN 60 OR GREATER THAN 90.
- TEMPERATURE: GREATER THAN 100.5

Admission Vital Signs: Date: ____________________________ Time: ________________

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If applicable: Blood Alcohol ____________________________

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Staff Completing:

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