Indications

Altered mental status, seizure, CVA or as patient condition warrants.

Special Considerations: Hematocrit levels that are to the high/low (above 55% or below 30%) extremes can cause false results.

Procedure

1. Gather supplies:
   - Blood Glucose Monitor
   - Test Strips
   - Lancet
   - Gauze
   - Pad/Band-Aid
   - Alcohol Wipe

2. Insert a new test strip to turn on the meter, push it in as far as it will go with three contact bars facing you.

3. Select location for finger stick, clean with alcohol wipe and allow to dry completely

4. The CAL CODE screen will pop up, verify the number matches the test strip vial number. Press OK or wait three seconds.

5. APPLY BLOOD screen will appear with an animation to apply blood to end of test strip.

6. Prepare lancet by pressing yellow “T” piece down into spring until a “click” is felt. “T” piece may then be twisted off, leaving a cocked lancet

7. Within 30 seconds, gently insert test strip into test strip guide, once correctly inserted, a blood drop symbol flashes on the display.
8. Lance the finger by pressing lancet firmly against skin and depressing trigger. Squeezing finger to one side to allow deeper penetration is recommended. Get a round drop of blood. If the blood smears or runs, do not use that sample. Wipe the area and gently squeeze another drop of blood or puncture a new site.

9. Obtain sample by touching and holding the drop of blood to the edge of the test strip.
   - Be careful not to push the test strip into the fingertip as it may not fill completely
   - Do not smear, scrape or apply more blood to test strip if it does not fill
   - If you get an ERROR 5 message, the blood sample was not large enough, remove test strip and reapply blood
   - Do not hold meter below blood drop to avoid blood running into the contact piece and ruining meter.

10. When blood is applied correctly to strip, a countdown from 5-1 will begin.

11. The blood glucose result is displayed.
   - If “LOW GLUCOSE” is displayed: the blood glucose result is lower than 20mg/dL
   - If “HIGH GLUCOSE” is displayed: the blood glucose result is higher than 600mg/dL

12. Record findings. mg/dL = milligrams per deciliter

13. Troubleshooting:
   a. TEMPERATURE ERROR: Meter is too hot (above 111F) or too cold (below 43F)
   b. ERROR 1: Meter problem, do not use meter, remove from service.
   c. ERROR 2: A used test strip has been placed into meter, replace with new strip.
   d. ERROR 3: Meter was not ready, blood sample applied before APPLY BLOOD screen was shown.
   e. ERROR 4: Strip problem. See owner’s manual.
   f. ERROR 5: Strip problem or incompletely filled test strip. Repeat test with new strip.

Control Solution Testing

1. Check the code on the test strip vial before inserting the test strip (WDM vials say 25)
2. Insert test strip into the meter
3. Verify that code on meter matches test strip code above
4. Wait for APPLY BLOOD screen to appear
5. Log test strip vial LOT number in Operative IQ or departmental log
6. Mark the test as a control solution test, press the “up” button to change APPLY BLOOD to APPLY CONTROL. The meter is now ready to perform a control solution test.

7. Prepare control solution.
   a. Shake the control vial
   b. Remove the cap and squeeze the vial to discard the first drop
   c. Wipe the tip with a clean tissue.

8. Apply control solution
   a. Hold vial upside down and gently squeeze a hanging drop.
   b. Touch the top edge of test strip to the drop and fill strip completely.

9. When strip is filled, a countdown will begin from 5 to 1 and the result will appear at the end.

10. Confirm that result is in the range that is displayed on the side of the vial below the LOT number.
    a. If result is abnormal
       i. Confirm that control solution and/or test strips are not expired, contaminated or damaged.
       ii. Repeat test following above steps
       iii. If test is still abnormal, remove meter from service and report findings to supervisor.