

MOBILE DIABETES CENTER POLICY AND PROCEDURE

**SUBJECT: BLOOD CHOLESTEROL AND GLUCOSE SCREENING USING THE CHOLESTEC MACHINE–
STUDENT/FACULTY/HEALTHCARE PERSONNEL**

EFFECTIVE DATE: 7/14

REVIEWED/REVISED DATE: 7/14, 11/15, 1/16, 1/17, 3/18, 9/20

PURPOSE: To provide non-diagnostic blood cholesterol and blood glucose screening in the community.

MAY BE IMPLEMENTED BY: trained healthcare personnel and students overseen by faculty nursing administrators. (Nursing students who have completed competency skills and demonstrated competency in Population Health I course).

Responsibilities:

- a. Blood Cholesterol screening performed using the Cholestec machine by trained healthcare personnel and students is intended to provide a rapid non-diagnostic, blood cholesterol screening result and a rapid non-diagnostic, blood glucose screening result that identifies whether cholesterol and glucose levels are within the normal range, or impaired. A training video is available at:
<https://www.youtube.com/watch?v=H3scuD3OTJo>
- b. Blood cholesterol and blood glucose screening associated with the Mobile Diabetes Center will be done by healthcare personnel and students trained in the proper use of the Choestec monitoring equipment.

PROCEDURE:

1. Allow the Cholestec Machine and cassettes to adjust to the temperature of the location where you are testing. Approximately 10 minutes is required for the cassettes to adjust to the room temperature of a new location prior to performing a quality control or screening test.

- a. **Cassettes** can be kept until the expiration date as long as they are kept refrigerated.
 - b. Once **cassettes** have come to room temperature, they are good for one month or 30 days from opening date. Mark box with opening date.
 - c. **Controls** must be kept cold at all times. Once they have been used to complete a control test they must be returned to cold packaging.
2. A greeter will be assigned to welcome screening participants, explain and obtain consent and assist participants in filling out screening questionnaire. The consent form will remain with the participant throughout the screening process.
 3. A Faculty/Student/Healthcare personnel will run an **Optics Check** on each Cholestec machine that will be used during a screening. All Cholestec machines must have an Optic Check run and recorded on the Optic Check log located inside the zippered pouch containing each Cholestec prior to beginning a screening clinic. Refer to the Cholestec LDX System User Manual for all instructional materials.
http://www.cholestech.com/docs/ldx/LDX_UM_EN.pdf
 - a. Push RUN to open Cholestec Machine
 - b. Place the OPTICS check cassette in the machine
 - c. Push RUN to start the control test
 - d. Results will be displayed in the LCD window
 - e. Record results in the Optics Check control log
 - f. Repeat steps for each Cholestec machine that will be used
 4. A Faculty/Student/Healthcare personnel will run a **Quality Control** on each batch of new cassettes. The new cassette used for a quality control check must be at room temperature prior to running a control test. Each new batch of Cholestec cassettes must have a quality control run and recorded on the control log located inside the package containing each batch of Cholestec cassettes prior to using a new batch of cassettes. Control Vials #1 and #2 must be kept cold at all times. Refer to the Cholestec LDX Cholesterol System User Manual for all instructional materials.
<https://www.stat-technologies.com/wp-content/uploads/2018/12/Alere-Cholestech-LDX-System-User-Manual.pdf>
 - a. Press RUN to open Cholestec machine

- b. Open batch of new cassettes
 - c. Place plastic applicator tip on plunger. Press down button on plunger to collect control solution from vial #1 into the plunger.
 - d. Push button on plunger to release control solution into cassette.
 - e. Place cassette into Cholestech machine and press RUN
 - f. Test will take approximately 5 minutes. Record results on Quality Control Log
 - g. ***Using a new plastic applicator***, Repeat steps a and c – f with Control Vial #2
 - h. ****RETURN CONTROL SOLUTIONS TO REFRIGERATOR****
5. A Faculty/Student/Healthcare personnel will obtain a blood specimen for screening purposes. Refer to the Cholestech Blood Cholesterol and Glucose Monitoring System user guide for all instructional materials.
 6. Understand how to correctly use lancing device/pipette and prepare lancing device/pipette.
 7. Remove a cassette from the package. Check the expiration and discard dates on the cassette. Inspect cassette to be sure it does not appear damaged.
 8. Wipe client's entire finger with alcohol wipe and advise client not to touch anything with finger.
 9. Assemble pipette and plunger.
 10. Put on gloves.
 11. Using lancing device puncture chosen site. Stroke hand and finger toward puncture site to form a drop of blood. Do not squeeze around the puncture site
 12. Wipe away first blood with gauze.
 13. Collect second drop of blood with pipette.
 14. Dispense blood from pipette into cassette.
 15. Place Lancing device and pipette into sharps container.
 16. Place cassette into Cholestec machine and press RUN. The screening test will take 5 minutes. The test result will appear in the LCD window.

17. Remove cassette from Cholestec machine and place cassette and all other potential Biohazards (i.e gauze pad) in a red Biohazard bag.
18. Place alcohol wipe, gloves and other trash into trash bag.
19. Results of the blood cholesterol and blood glucose screening test will be recorded on the bottom of the participant's consent and given to client in verbal and written format
20. Appropriate education will be shared with the participant based on the screening results by the lead RN. Participants will be told that screening results are in no way diagnostic of any disease. Education provided to clients and student projects will be based on the American Association of Diabetes Educators best practice guidelines.
21. Participants with a fasting total cholesterol result that is above 240/dl should be referred to their primary provider.
22. Faculty, healthcare personnel and students will refer each person with an abnormal screening result to his or her primary provider. If a person does not have a primary provider, assistance in locating/identifying a provider will be offered. If a person does not have a provider and does not have insurance, he or she will be referred to the list of Federally Qualified Health Centers (ie. One World, MCHC, Charles Drew- listing is available on the MDC).

References

American Association of Diabetes Educators [AADE], (2011), *The Art and Science of Diabetes Self-Management Education Desk Reference*. 2nd Ed. Chicago, Illinois.

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