

*Precision Xceed Pro* Glucose Meter

For Nursing Students

Swedish Medical Center  
Seattle, Washington

# Introduction

- This presentation will familiarize you with the blood glucose meter (BGM) system at Swedish Medical Center.
- It steps through the basic operations and important points of bedside glucose testing.

# Requirements

Operation of blood glucose meters at Swedish Medical Center requires proof of training and a unique operator ID for each person who performs tests.

Once certified, your Operator ID will work on any campus. Annual certification is required by regulation.

# Requirements

At the end of this modules, you will fill out a written learning assessment.

This assessment will allow the Point of Care Testing (POCT) Department to validate your unique ID in the database, making you a certified operator.

# Requirements

If your unique operator ID does not work on the meters within three days of your blood glucose meter class, please let the POCT Department know immediately, 206-386-2461

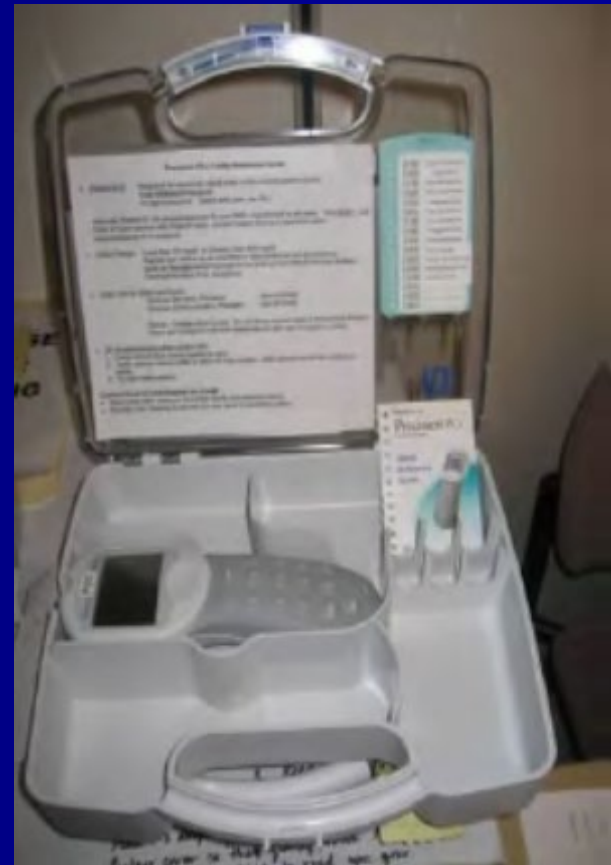
# Precision PCx Glucose Meter

This is the glucose meter for Swedish Medical System.

It allows you to test a bedside glucose in about 30 seconds.



# Glucose Meter Caddy



# Helpful Information

- The meter and supplies are stored in a caddy.
- The caddy information sheet has tips on correct Patient ID, what to do if quality control is not working, ordering information for supplies, phone numbers and action limits.



# Correct Patient Identification is Critical!

- The meters use the Admission Contact Serial Number (CSN) of the patient to post the results to the chart. A patient may have several different CSNs during a single visit, so it is very important to use the correct CSN; the admission CSN is found on the armband.
- Never use the medical record number.

# **Correct Patient Identification is Critical!**

Using the incorrect CSN number could lead to posting the result on the wrong patient's records!

# Correct Patient Identification is Critical!

- Point of Care uses the Contact Serial Number (CSN) which matches the barcode on the patient's armband.



- Enter the CSN directly from the patient's armband. Use the scan button to scan the linear barcode.
- Patient ID bands are coded with colors and campus locations that must match the patient's current location.

# Campus Color-Coded Labels

## Ballard

- Blue for Ballard



## First Hill

- Green for First Hill



## Cherry Hill

- Red For Cherry Hill



## Issaquah

- Purple for Issaquah



## Edmonds

- Pink for Edmonds



A WHITE band will identify patients in Addiction Recovery, Inpatient Behavioral Health, Inpatient Rehab and Mill Creek/Redmond Emergency Departments

# Corrections to Patient Identification

- If you suspect that you have used the wrong number, please call the Point of Care Testing Help Line (x62461) immediately so that we can clear up the error as soon as possible. Provide your name, Patient ID used, the CORRECT patient ID, the patient's full name, the date and time of test and the result if available.
- If for some reason, a patient number is not available, use all zeros. When you do have the correct patient number, call the help line with information as above.

# The Point of Care Testing Team is here to help!

- We can be reached by pager 24/7 at 62461 (This number is available on the lid of the caddy).
- A message left on the Point of Care Testing Helpline will activate a pager.

# Action Limits

- Results that require action to be taken “Action limits” are for glucose results of less than 55 or greater than 400.
- The result should be checked by repeating with a new sample collection.
- Both results should be reported to the RN

# Glucose Test Strip Technology

- Strips come in an individually foil-wrapped package.
- The strips do not expire until the printed date.
- Meters will not allow testing with an expired strip.
- Notice that each strip is barcoded.





# The bar code is scanned before you perform a test

The barcode tells the meter:

- Lot Number of Strip
- Quality Control Range
- Expiration Date
- Calibration for the Strip



# Scanning Barcodes

- Hold the meter 3 to 7 inches from the bar code. Press and hold the SCAN button while aiming scan light at the barcode. Hold the meter steady while scanning.
- If you have scanning problems, check the window for fingerprints or dust. Wipe with a soft cloth if the window appears dirty.
- The scanner produces a light which should not be directed at the eyes.

# What is Quality Control?

Quality control (QC) is a system used to maintain accuracy and precision.

# Every 24 Hours!

- At 24 hour intervals, liquid Quality Control (QC) must be performed.
- If QC has not been completed in the past 24 hours, the meter will lock out patient testing.

# Quality Control Solutions



# Quality Control

- QC solutions come as a set. When opening new controls, both bottles should be opened at the same time.
- Once opened, they expire in 90 days.
- Date bottles when they are opened. Write “opened” and the date.
- Example:  
Opened 10/29/21

# Quality Control

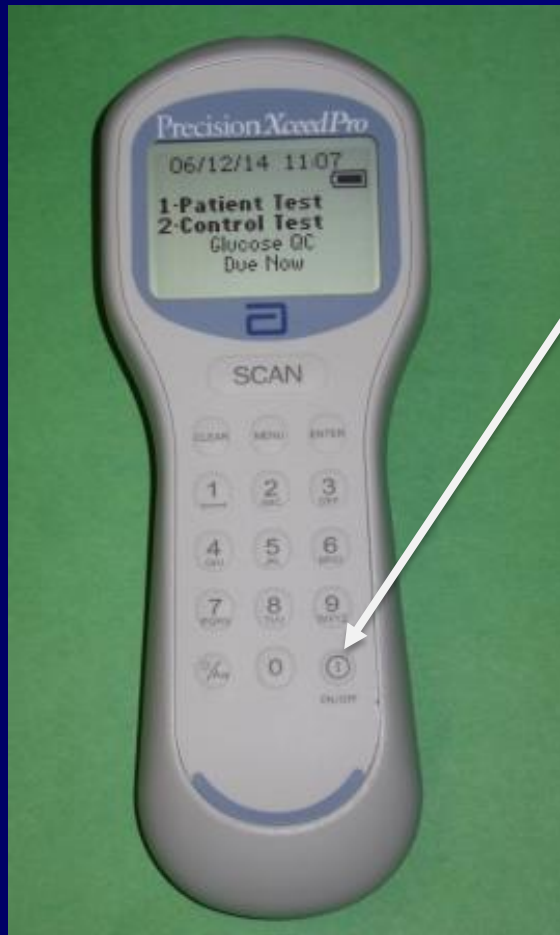
- Always check bottles before use to make sure they have not been open for more than 90 days. Throw away any bottles open for more than 90 days or if a bottle is found opened without a date.
- It is everyone's responsibility to check dates on quality control material and to replace them if needed.

# Hands On

When doing patient testing, **always** wear gloves and other required personal protective equipment.

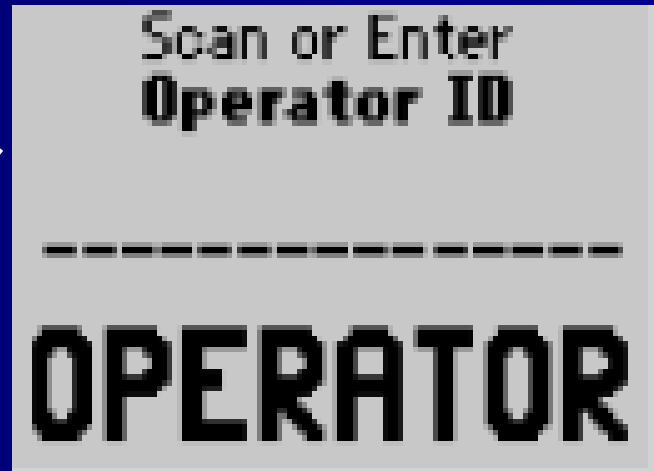


# Meter On



- Turn meters on using the power button.
- If Quality Control is due, the meter will let you know. The message “QC due now” will appear.

# Operator ID

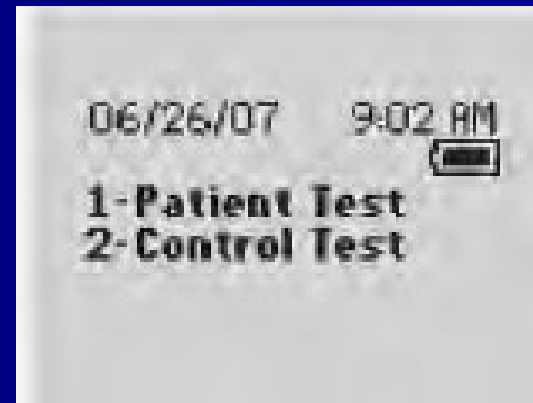


Enter your operator ID number (last 5 numbers of your Social Security Number).

# Menu



- The first menu to come up is the "Short Menu".



- If QC is due, the meter will let you know. The message "QC due now" will appear.

# Menu Key

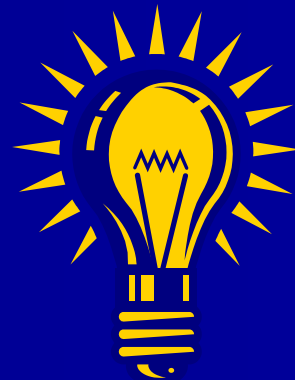


- The MENU key toggles between the long and short menu. It is also the home key to get back to the menu choice screen.
- The "Long Menu" has more advanced operations.

# The Backlight Key



- The **backlight key** is useful in low light situations. It is the bottom left button with a "sun" symbol. Pressing and holding will turn on the backlight, press and hold again to turn off the backlight.



# The Clear Key



- The "Clear" key is a backup key. If the wrong barcode or number is entered it will back up one space or delete the number entered to start again.

# The SCAN Key



- The "SCAN" key is the button to operate the barcode scanner. The scanner will only operate in test mode.
- The light should not be directed at the eyes.

# The SCAN Key



- The SCAN key will also act as a hold key. Once pressed, the meter will stay on for an additional four minutes. This is a safe button as it will not change the data/field entered.



# Scanning Barcodes

- Hold the meter 3 to 7 inches from the barcode.
- The meter will cycle with a red “aiming” light and then a green flash that takes a picture of the barcode.
- If you have scanning problems, check the window for fingerprints or dust. Wipe with a soft cloth if the window appears dirty.



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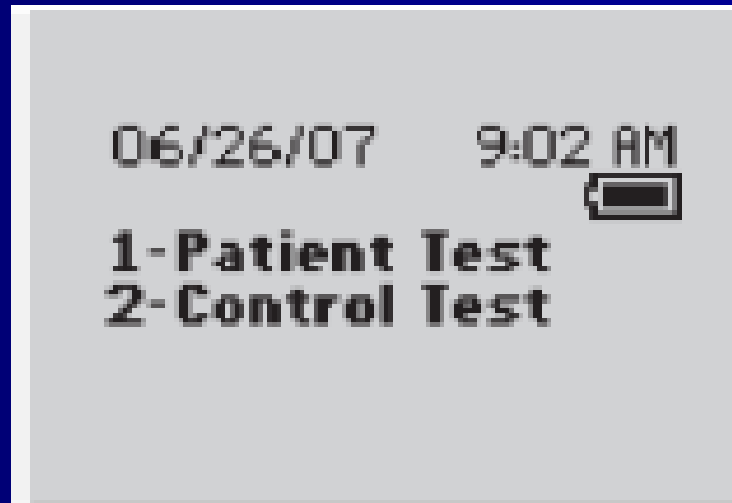
# READ THE SCREEN

Pay attention to the meter's screen. It will tell you what the meter needs. This is the key to successful operation!



# Running Quality Control

Choose the number 2 option on the "Short Menu" to run QC. Enter your Operator ID.



# Scanning

## To Scan:

- Hold the meter 3-7 inches from the barcode.
- Press and hold the Scan button.
- Aim the green rectangle directly over the barcode.
- Hold the meter steady while the flashing red light activates to complete the scan.
- The meter will beep when it accepts the barcode.



# Scanning

Scan the barcode on the Low Control (white bottle, white cap).



Then scan the barcode on the strip.

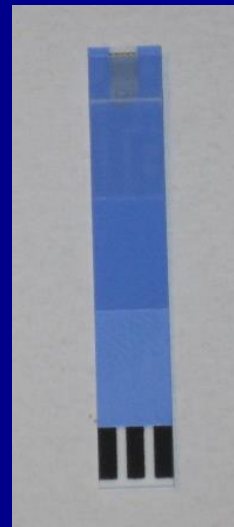


# Opening the Strip

Locate the black spot in the notch at the middle of the strip.

Begin the tear at the black spot. Tear diagonally towards the bottom of the strip.

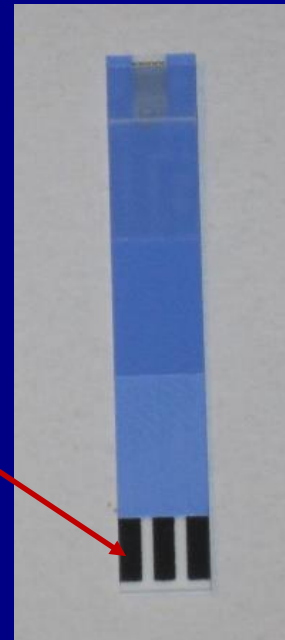
# Opening the Strip



# Insert Strip into Meter

This meter requires that the strip be inserted into the meter before introducing sample.

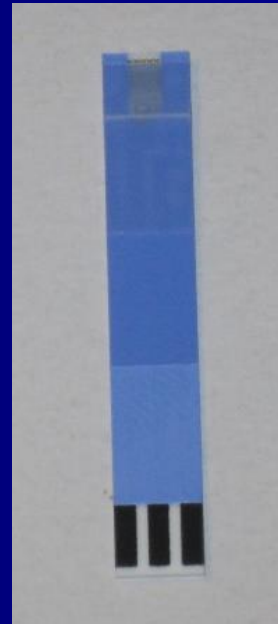
Insert the strip into the meter "piano key" end first.





# Insert Strip into Meter

The white part of the strip will only absorb a very small amount of sample, so any contamination (sugars) on your or the patient's hands or the source site could affect the result.



# Mix Quality Control bottle

- Mix the Low bottle of QC material gently, so as not to introduce bubbles. Apply a small drop to the absorbent end (white part) of the strip.
- The meter starts testing as soon as it detects a properly filled strip.

# IMPORTANT!

- Keep the meter flat when testing.
- If the meter is held at an angle, blood or control solution may flow into the meter requiring replacement.



# Running High Control

After you get a "Pass" result with the Low Control, you may run the High Control (blue cap) in the same manner making sure to **hold the meter flat** while running and after performing test.

# Be Tidy

- Always remove and discard used glucose strips as soon as testing is finished.
- This will prevent material from entering the strip port.



# Protect Yourself

- Remember, when doing patient testing, **ALWAYS** wear gloves and other required personal protective equipment.

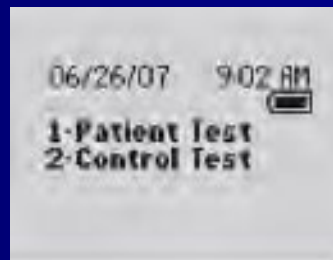
# Be aware of Infection Control

- Wipe down the meter with a sanicloth from the purple tub after every use. The meter must be cleaned BEFORE placing in the docking station.
- The Sanicloth lid is a clean surface. The container should be opened with clean gloves.

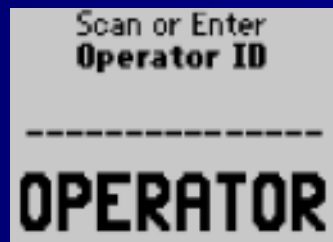


# Running a Patient Test

- From the “short menu”, choose option 1.



- Enter your unique ID: the last five digits of your Social Security number.





# Running a Patient Test

- Enter the Admission Contact Serial Number directly from the patient's armband. If the number is entered from another source it may be an incorrect Contact Serial Number.
- Patient ID bands have the correct Admission Contact Serial Number encoded on the band. Scanning the ID band is the preferred method to enter the Contact Serial Number.

# Correct Patient Identification is Critical!

- Barcode scanning = Confirmed Patient ID
- When scanning the barcode, the meter advances automatically to the next testing screen.
- Scanning the barcode ensures that results will be available in EPIC ten minutes after downloading.

# Correct Patient Identification is Critical!

- If you do not scan the barcode: You will be required to type the Admission CSN twice.
- Remember to pause after each entry to verify that the correct Admission CSN has been entered.

# Running a Patient Test

- Scan the barcode on the glucose strip and open it.
- Insert strip into the meter.

# Running a Patient Test



Hold the meter and strip higher than the sample or upside down to allow the blood to touch only the white part of the strip.

# Running a Patient Test

Note that the back of the strip is plastic and not absorbent. Sample will be wasted if applied to the back.

Keep the meter flat once sample has been applied.



# Repeat testing

- If the patient test is outside the action limits (less than 55 or greater than 400mg/dl, for adult patients), the operator should repeat the test with a new collection.
- Repeat all results to the RN.

# Repeat testing

- If the repeat test is done on the same glucose meter within 10 minutes of the first result (and the results are downloaded at the same time) the computer will not post the first result.
- Only the second result will appear on the patient's permanent medical record.
- If both results post to the patient's record, the POCT Department must be contacted to remove the erroneous/extra value and charge.



# Seeing Stored Results

- The meters will retain patient and quality control results even after the meter is placed in the download station.
- To see stored results press the menu key to see the secondary menu.
- Choose "Data Review" and enter a valid operator ID.
- Choose the best option for your search (1-4).

# Results by Operator ID (Option 1)

- Results are available by operator ID. This is useful for investigation of possible patient ID entry problems.
- If you discover any, please call the help line with the correct ID information as soon as possible.

# Isolation/Cleaning Procedure

Per the Swedish Standard "Cleaning and Disinfection Practices for Patient Care Equipment", all glucose meters must be wiped down with the appropriate cleaning product for the patient type immediately after leaving a patient room and before downloading or putting the meter down on any surface.

# Isolation/Cleaning Procedure

Meters must be cleaned with a PDI Super Sani-Cloth regardless of patient type except for those in **Enteric isolation** when a Clorox® germicidal wipe is required. After wiping the meter with a Clorox wipe the user should wipe the surface with a lightly dampened paper towel to protect the meter from bleach (salt) residues.

# Isolation/Cleaning Procedure

- After thorough cleaning, the meter should be docked to transmit results.
- Any test strips brought into the room must remain in the room.

# Glucose Docking Station



- Connected to the hospital computer system
- Will post results to the patient record as Point of Care Testing (POCT) Bedside Glucose through the use of the docking station.

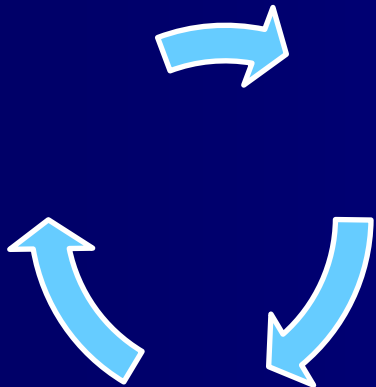
# Transmitting Results

- Dock the BGM after every patient test or group of tests so that the test results are available in the EPIC computer system as soon as possible.
- Pharmacy and Clinicians are relying on these results availability in the patient's record in a timely manner.

# Meter in Docking Station



- When the meter is docked it will turn on. After connection to the hospital computer, arrows will follow each other in a circular motion on the screen.
- After download/upload the meter may be removed.





# Meter in Docking Station

- If the docking process does not complete you may see a message “Last upload incomplete Redock meter”.
- Place the meter in the docking station again.
- If the message occurs again, press 1-Continue, find another docking station to attempt download.
- Contact Point of Care Helpline if meters are not downloading.

# Conclusion

Thank you for reviewing glucose meter training.

- Please print and complete the assessment below and return to your clinical instructor.
- You will be asked to provide the last 5 digits of your social security number(SS#) on the form. If you do not have a SS#, email [julie.baxter@swedish.org](mailto:julie.baxter@swedish.org)
- It is important to fill out the form completely and legibly.
- POCT Learning Assessment