North Florida South Georgia Veterans Health System

Point-of-Care Testing (POCT)

Glucometer Initial Training

Version January 2022

Ancillary Testing Coordinators North Florida South Georgia Veterans Health System

- Sandra Pascual
- Dolly A. Gonzalez

Contact information located in the glucometer box

Limitations of the glucometer

The system is not to be used for the diagnosis or screening of diabetes mellitus

Only for the monitoring of the treatment of diabetes mellitus

Very Important

This meter is not FDA approved to

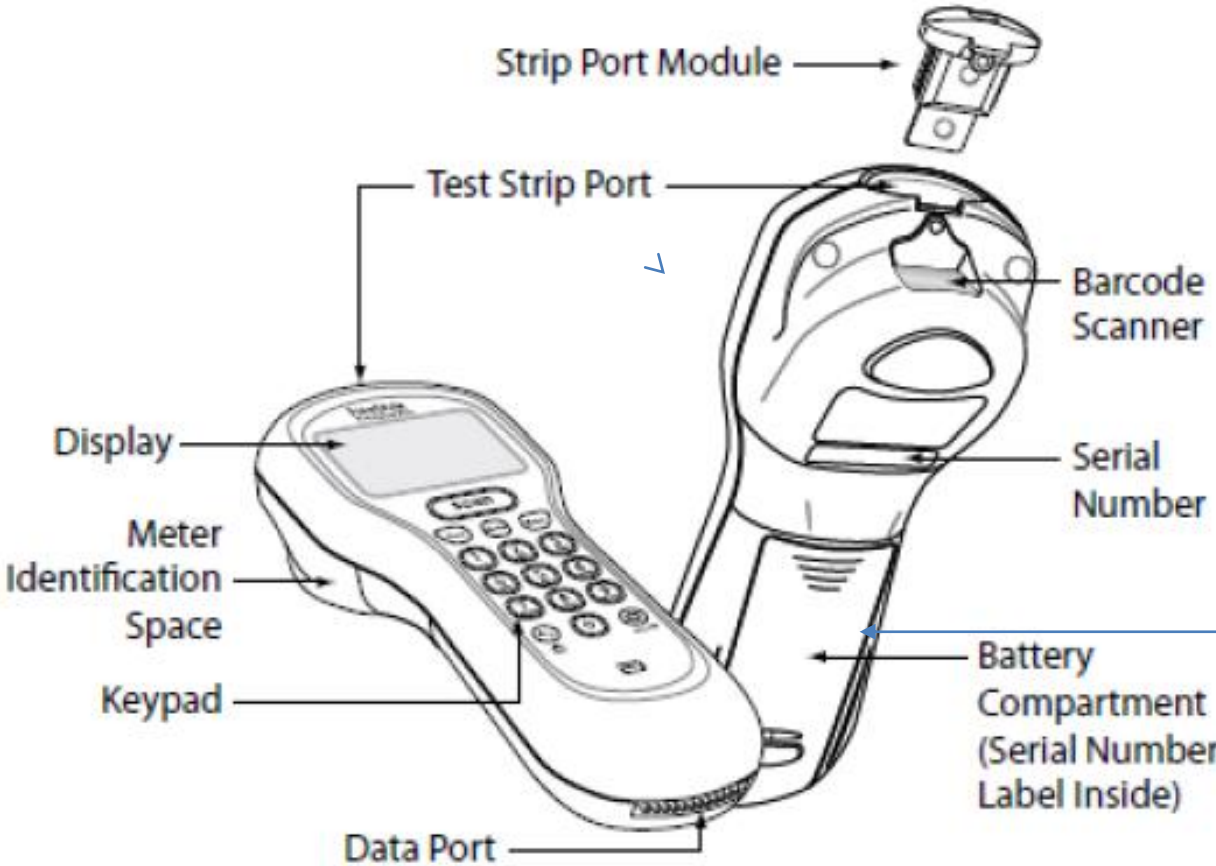
<u>be used on</u>

<u>Critically Ill patients</u>.

Critically ill Patients

- Patient on mechanical ventilation and requiring an FiO2 of >60% or CPAP of >8
- Hypotension requiring vasopressor support to maintain mean arterial pressure (MAP) >60 mmHg
- Hematocrit <15% or >65%.
- Requiring intravenous insulin infusion to maintain glucose control
- A diagnosis of any of the following: Shock, severe Hypotension, decompensated heart failure, diabetic ketoacidosis, metabolic acidosis with pH<7.2 and or lactic acidosis
- Status epilepticus
- Patient on a balloon pump or other circulatory assist device
- Patients receiving massive transfusion protocol post cardiac arrest

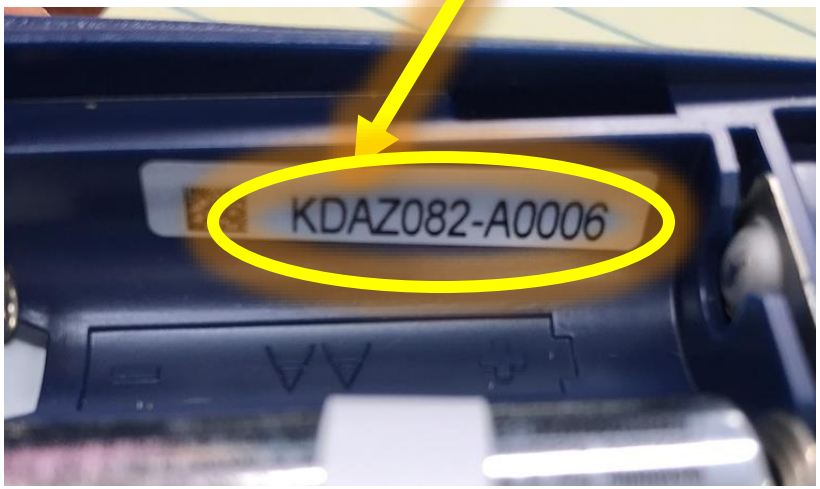
Freestyle Precision Pro Glucometer
Abbott



2 AA Alkaline Batteries

Freestyle Precision Pro Glucometer Serial Number

Serial Number

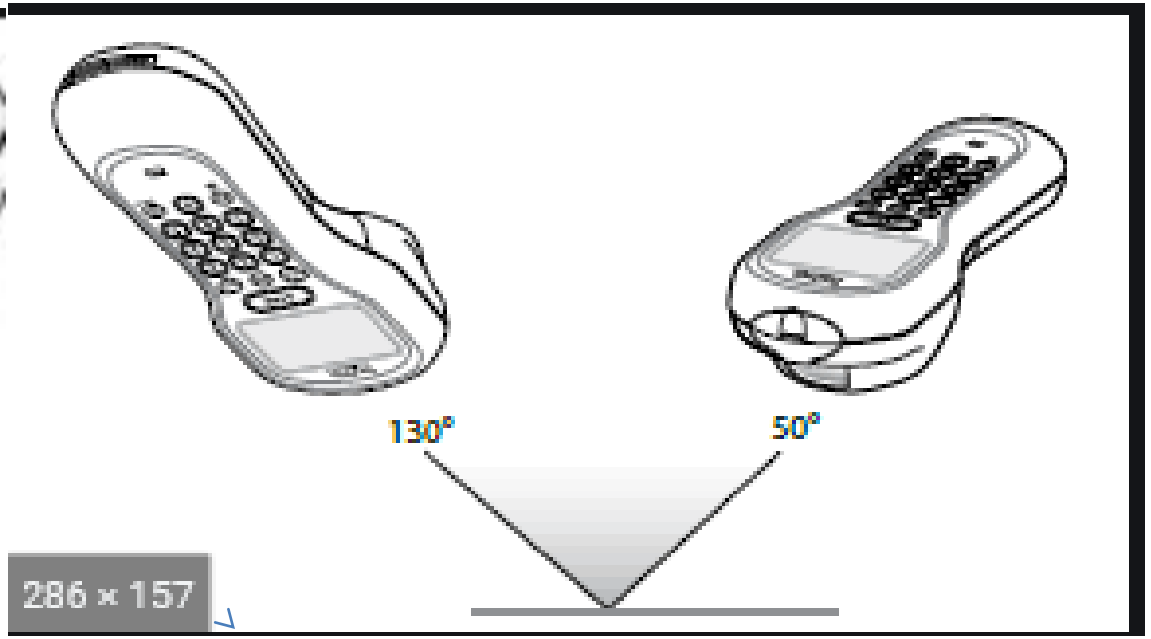


Supplies

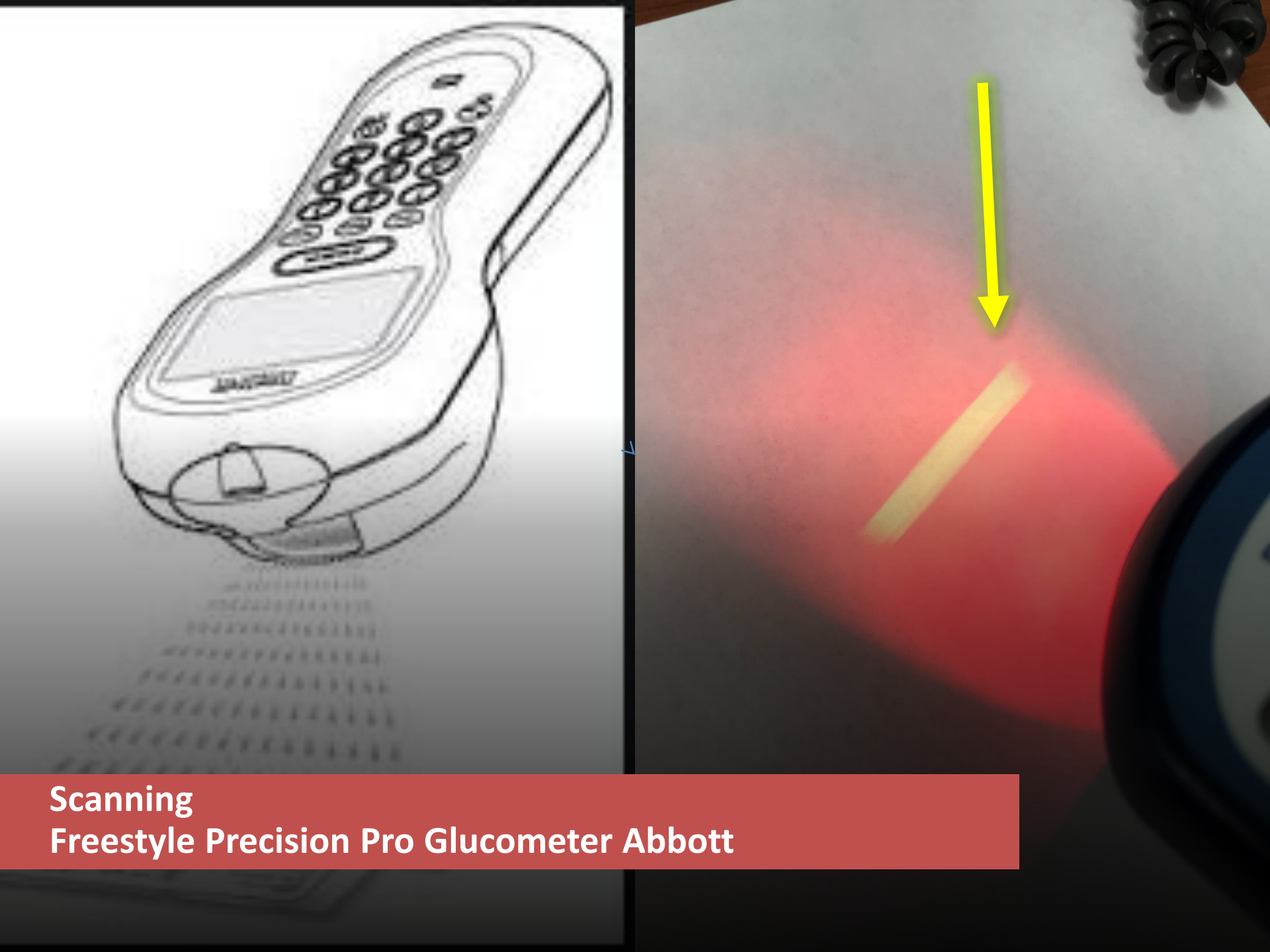
Testing strips, control vials, and AA batteries are supplied by

Supply Chain Management.

These items are usually stock right next to the lancets in the supply room



Scanning
Freestyle Precision Pro Glucometer Abbott



Scanning
Freestyle Precision Pro Glucometer Abbott

Operator ID?

Operator IDs are used to access the glucometer to perform glucose testing.

This Operator ID or DUZ number is unique to each individual.

NEVER SHARE OPERATOR NUMBER WITH ANYONE

Operator ID Expiration message

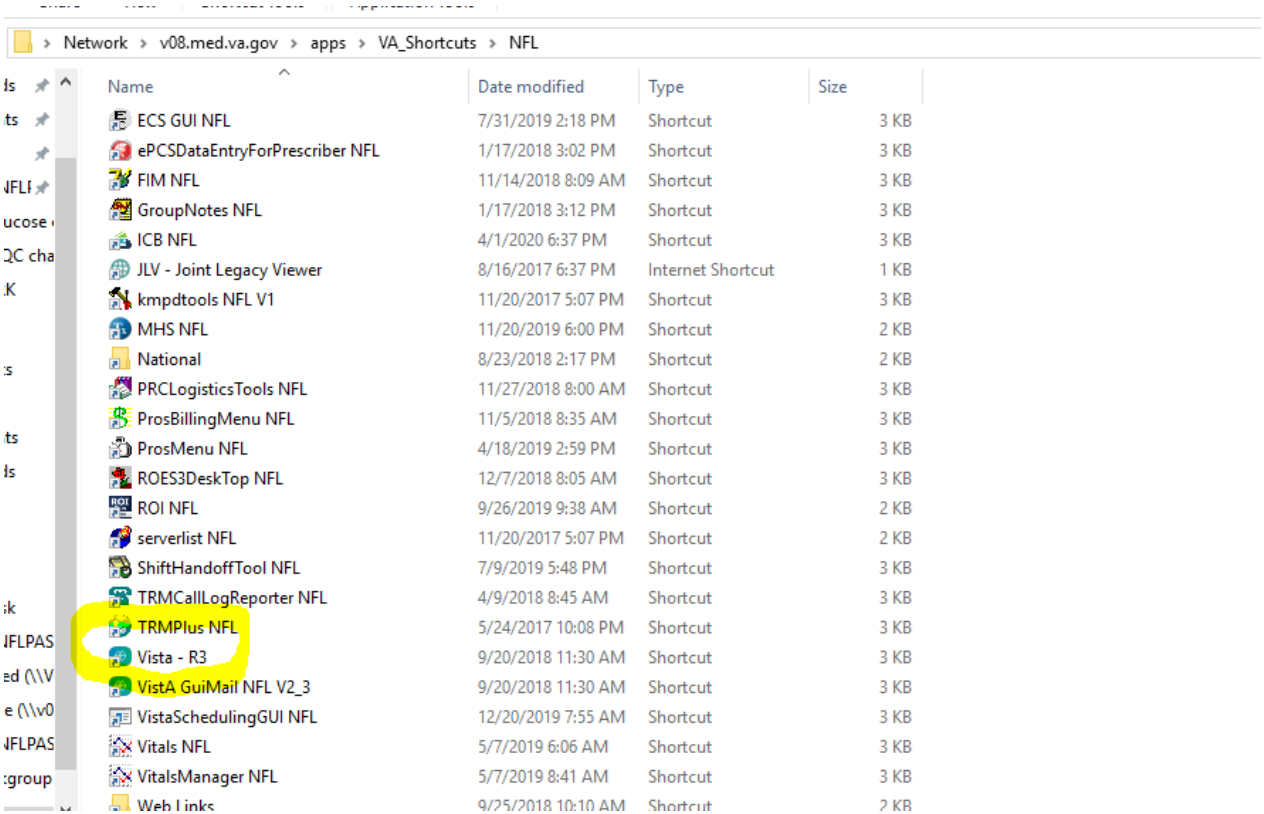
Contact your nurse manager or nurse educator to schedule training

We are also here to assist you

How to find your own operator code?

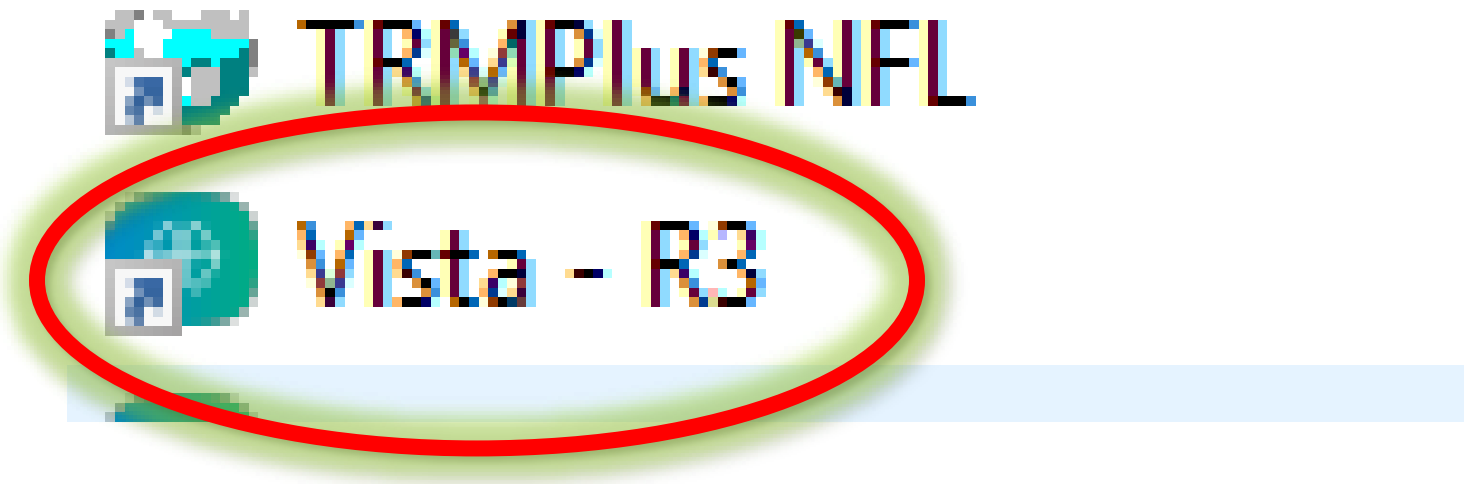
How to find your own operator code?

Vista



How to find your own operator code?

Vista



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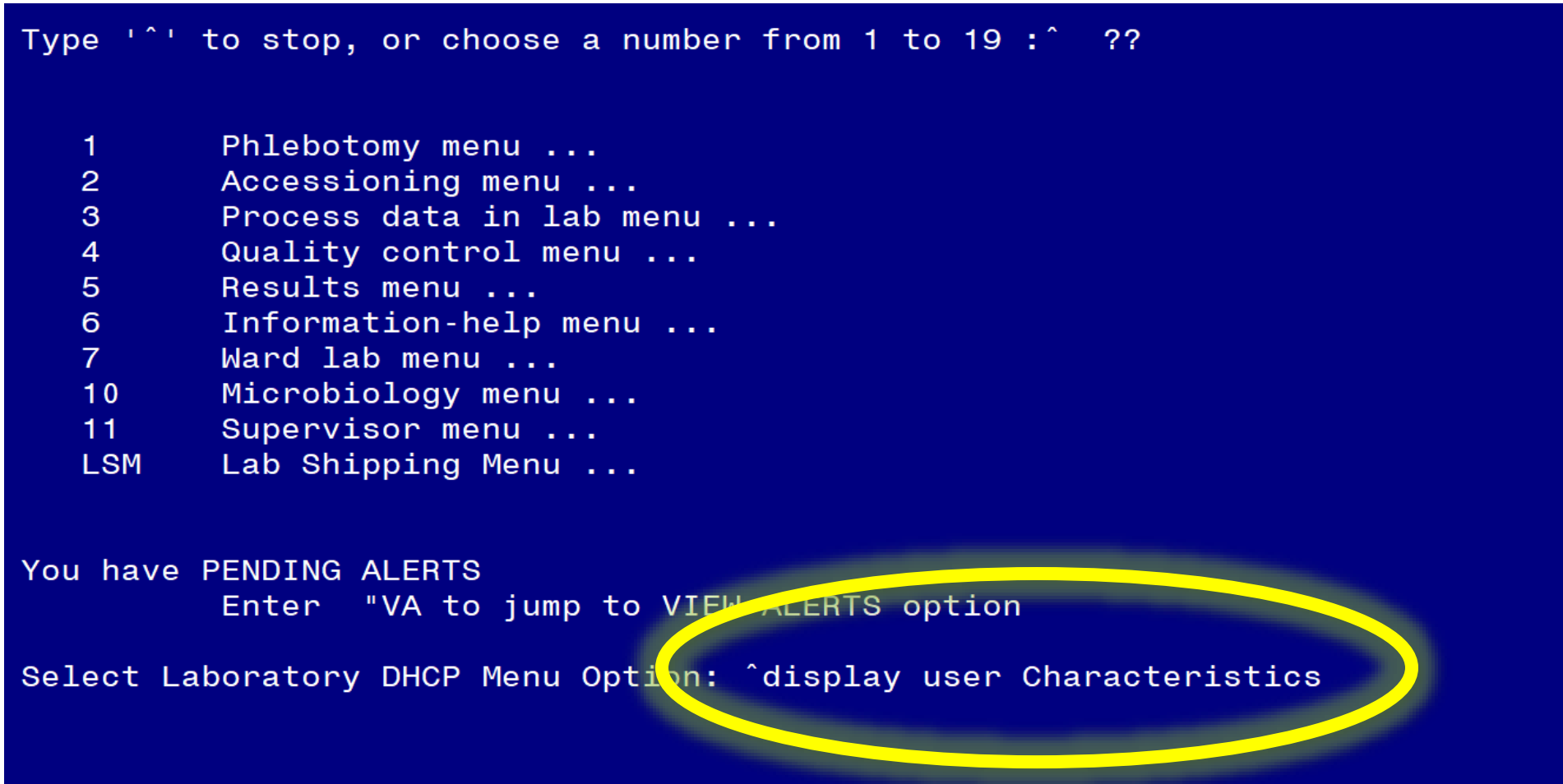
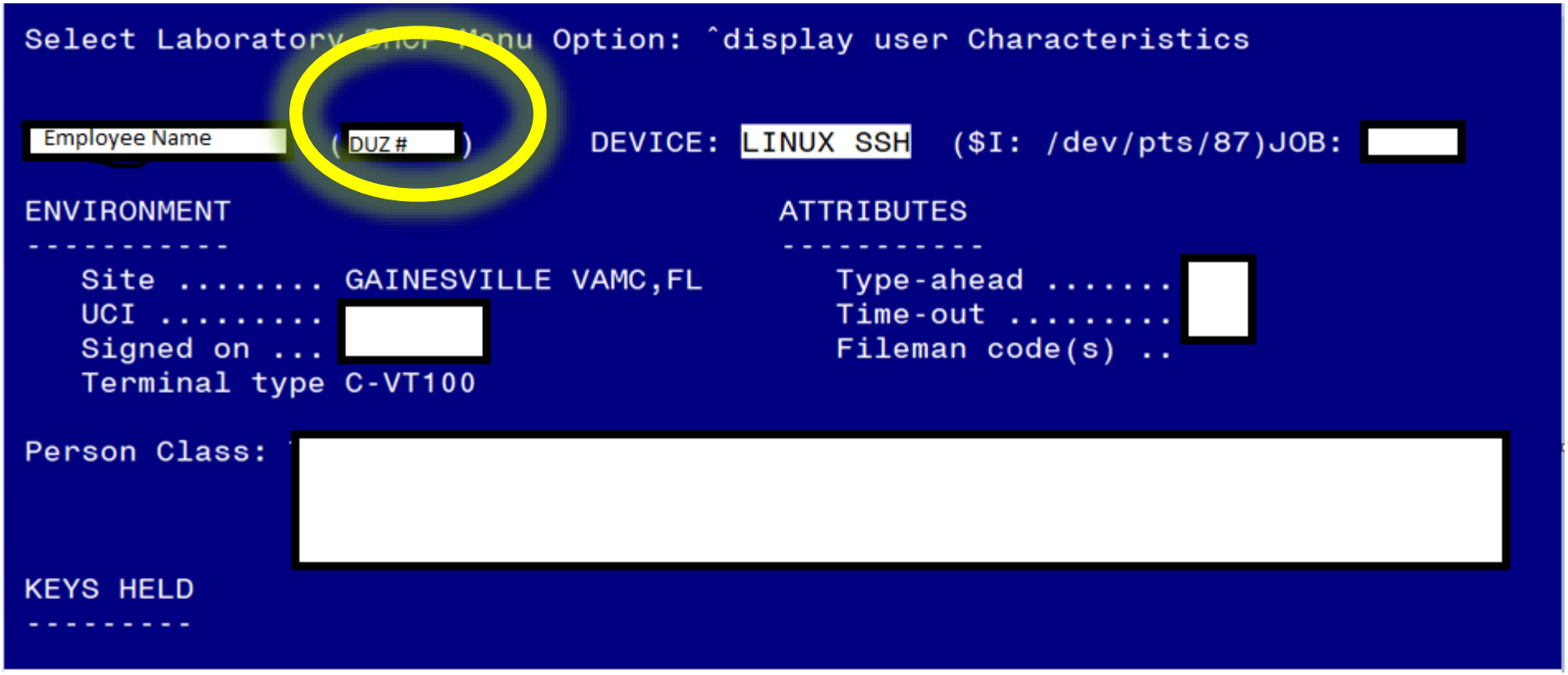


How to find your own operator code?

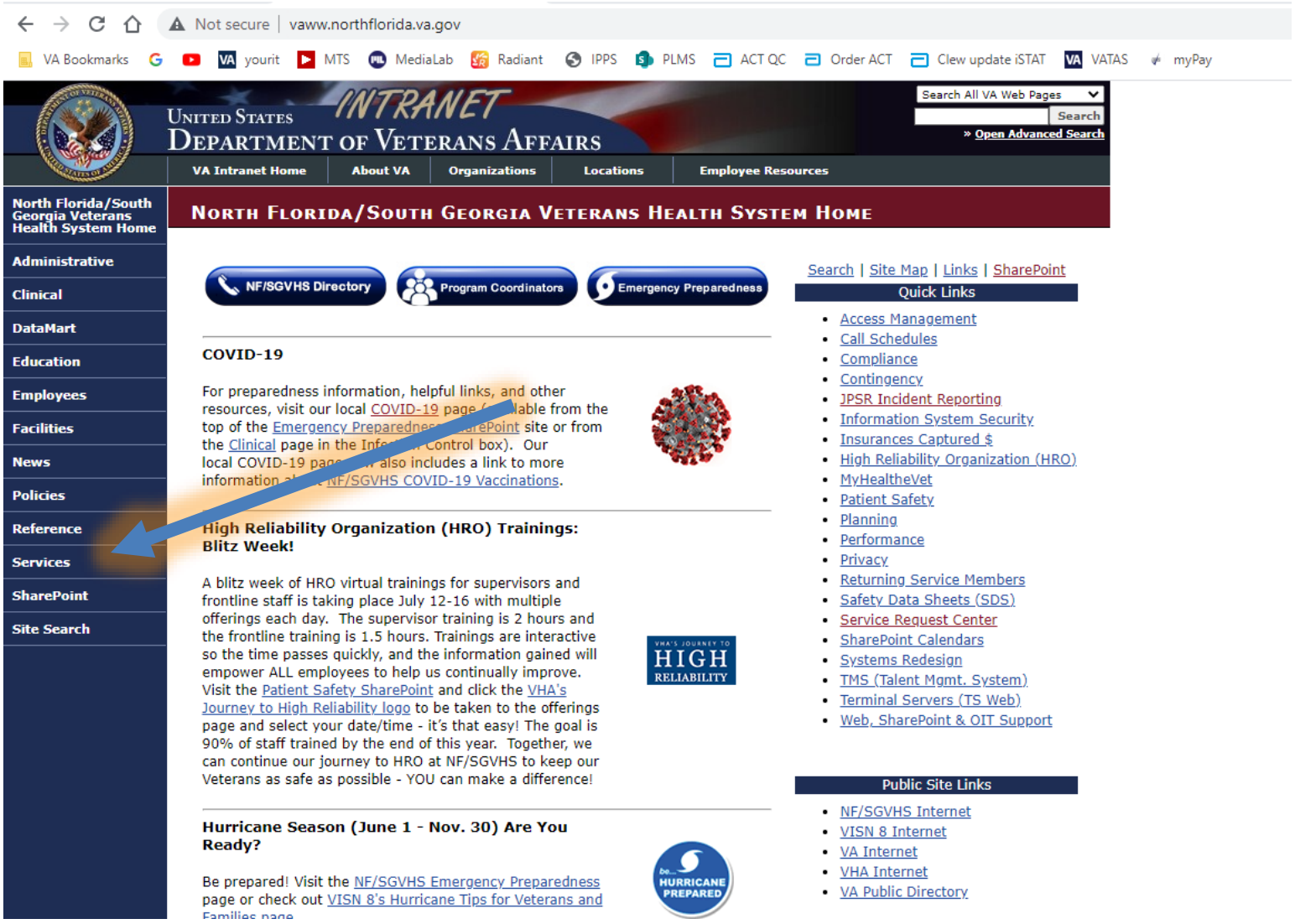
Vista

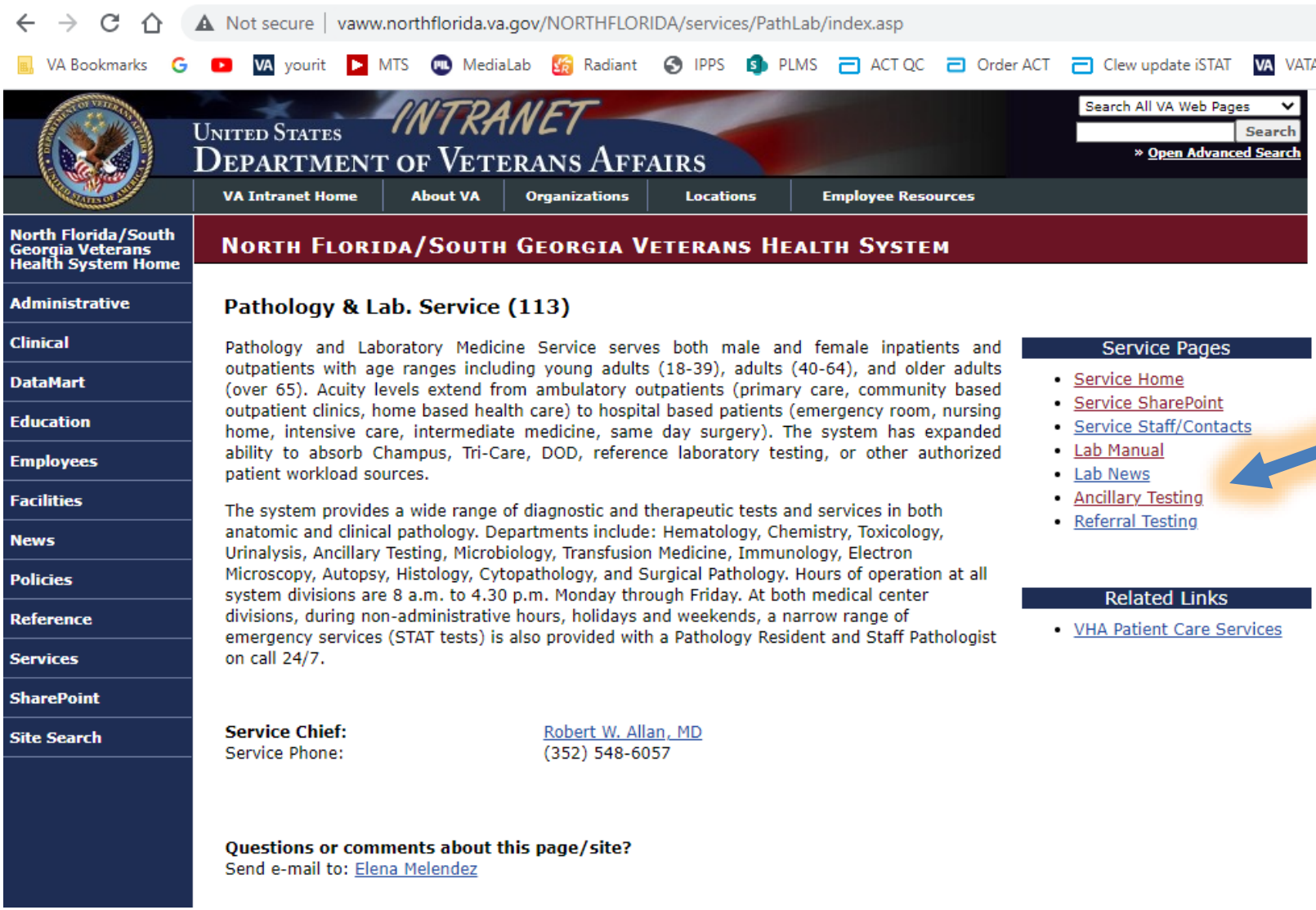


Operator Code becomes inactive if you don't sign in into VISTA or CPRS within 90 days

- **If you barely use CPRS or VISTA… sign-in once a month to keep it active.**

Procedures are located at the PLMS SharePoint




Not secure | vaww.northflorida.va.gov/NORTHFLORIDA/services/PathLab/index.asp
VA Bookmarks
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MTS
MediaLab
Radiant
IPPS
PLMS
ACT QC
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United States Department of Veterans Affairs
Search All VA Web Pages
Search
» Open Advanced Search
VA Intranet Home
About VA
Organizations
Locations
Employee Resources
North Florida/South Georgia Veterans Health System Home
Administrative
Clinical
DataMart
Education
Employees
Facilities
News
Policies
Reference
Services
SharePoint
Site Search
North Florida/South Georgia Veterans Health System
Pathology & Lab. Service (113)
Pathology and Laboratory Medicine Service serves both male and female inpatients and outpatients with age ranges including young adults (18-39), adults (40-64), and older adults (over 65). Acuity levels extend from ambulatory outpatients (primary care, community based outpatient clinics, home based health care) to hospital based patients (emergency room, nursing home, intensive care, intermediate medicine, same day surgery). The system has expanded ability to absorb Champus, Tri-Care, DOD, reference laboratory testing, or other authorized patient workload sources.
The system provides a wide range of diagnostic and therapeutic tests and services in both anatomic and clinical pathology. Departments include: Hematology, Chemistry, Toxicology, Urinalysis, Ancillary Testing, Microbiology, Transfusion Medicine, Immunology, Electron Microscopy, Autopsy, Histology, Cytopathology, and Surgical Pathology. Hours of operation at all system divisions are 8 a.m. to 4.30 p.m. Monday through Friday. At both medical center divisions, during non-administrative hours, holidays and weekends, a narrow range of emergency services (STAT tests) is also provided with a Pathology Resident and Staff Pathologist on call 24/7.
Service Chief: Robert W. Allan, MD
Service Phone: (352) 548-6057
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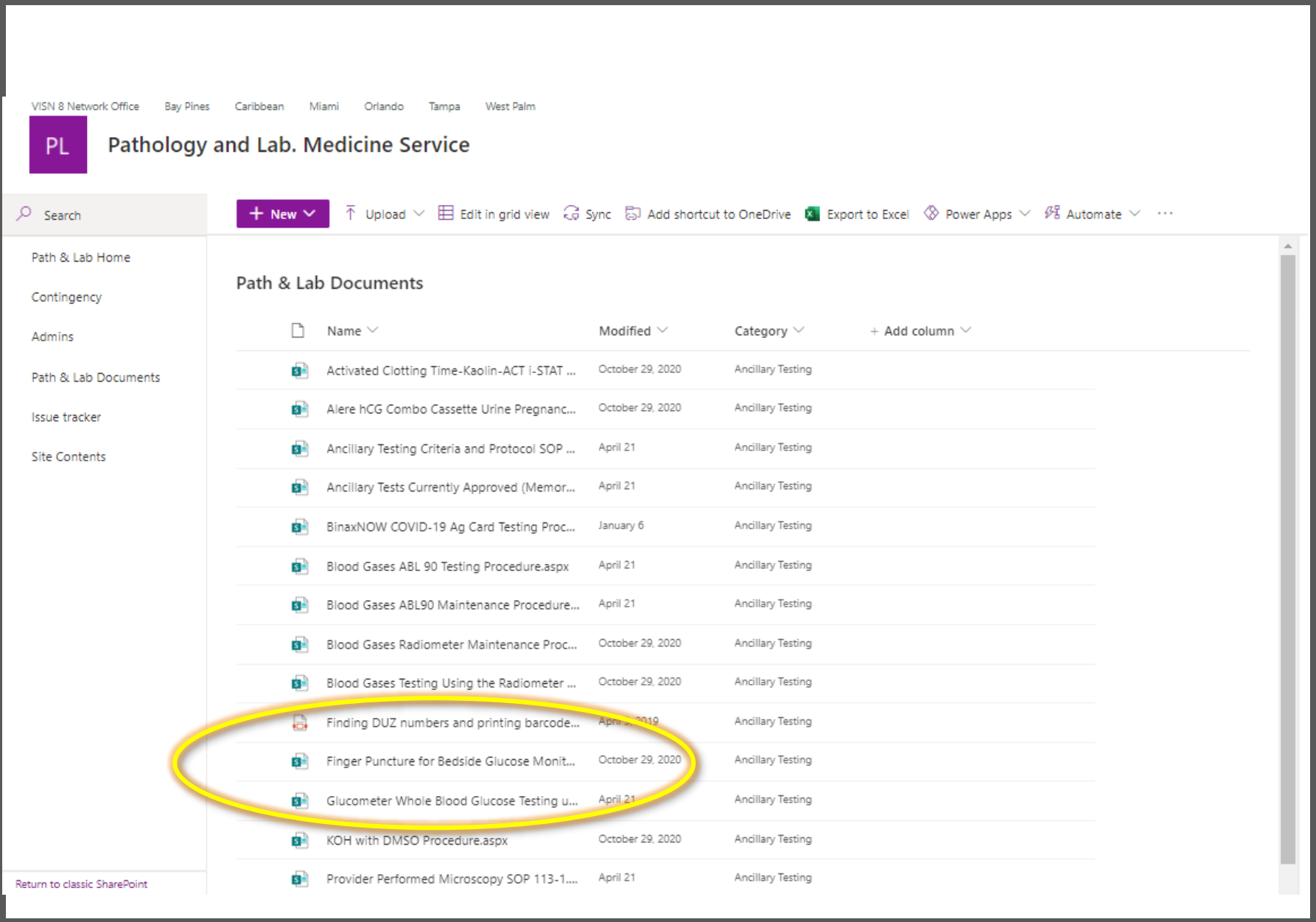
VISN 8 Network Office
Bay Pines
Caribbean
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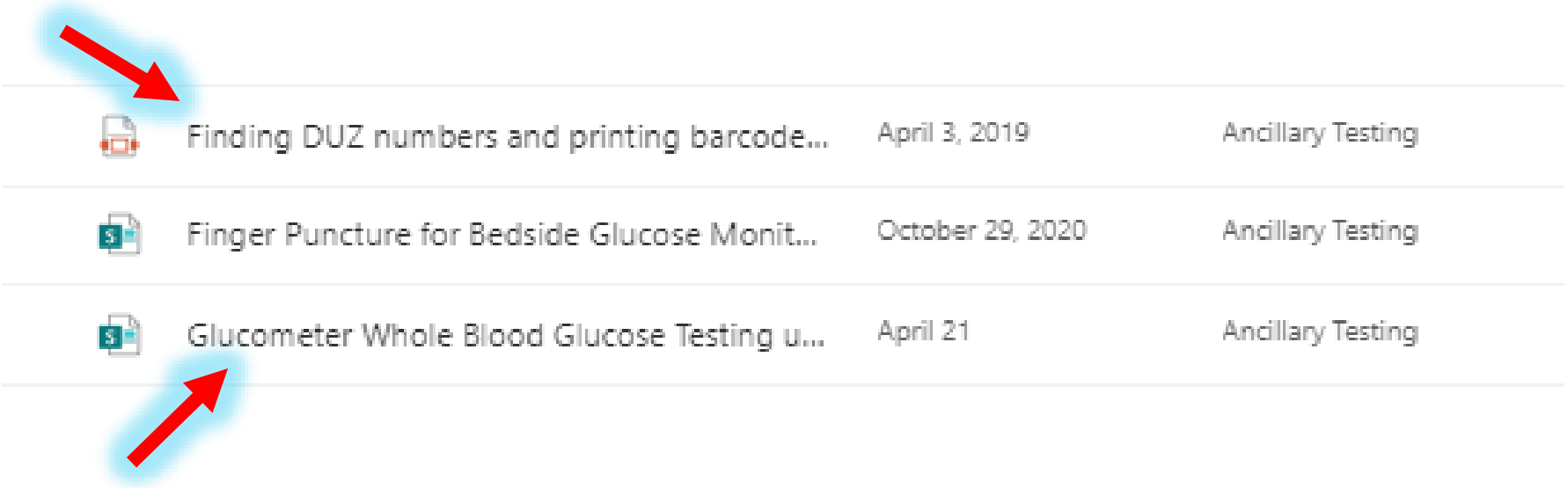
Orlando
Tampa
West Palm
PL
Pathology and Lab. Medicine Service
Search
New
Upload
Edit in grid view
Sync
Add shortcut to OneDrive
Export to Excel
Power Apps
Automate
Path & Lab Home
Contingency
Admins
Path & Lab Documents
Issue tracker
Site Contents
Return to classic SharePoint
Path & Lab Documents
Name
Modified
Category
+ Add column
Activated Clotting Time-Kaolin-ACT i-STAT ... October 29, 2020 Ancillary Testing
Alere hCG Combo Cassette Urine Pregnanc... October 29, 2020 Ancillary Testing
Ancillary Testing Criteria and Protocol SOP ... April 21 Ancillary Testing
Ancillary Tests Currently Approved (Memor... April 21 Ancillary Testing
BinaxNOW COVID-19 Ag Card Testing Proc... January 6 Ancillary Testing
Blood Gases ABL 90 Testing Procedure.aspx April 21 Ancillary Testing
Blood Gases ABL90 Maintenance Procedure... April 21 Ancillary Testing
Blood Gases Radiometer Maintenance Proc... October 29, 2020 Ancillary Testing
Blood Gases Testing Using the Radiometer ... October 29, 2020 Ancillary Testing
Finding DUZ numbers and printing barcode... Ancillary Testing
Finger Puncture for Bedside Glucose Monit... October 29, 2020 Ancillary Testing
Glucometer Whole Blood Glucose Testing u... April 21 Ancillary Testing
KOH with DMSO Procedure.aspx October 29, 2020 Ancillary Testing
Provider Performed Microscopy SOP 113-1.... April 21 Ancillary Testing

Pathology & Lab Medicine SharePoint SOP or Procedure Manuals



QUALITY CONTROL

Is how you verify that your glucometer is working correctly and provide you with accurate results

QUALITY CONTROL

Controls are good for

Ninety (90) Days

from when they are opened and need to be dated with both **Opened and Expiration date**.

QUALITY CONTROL

Always!!!!

Write on the vial

Open and Expiration dates.

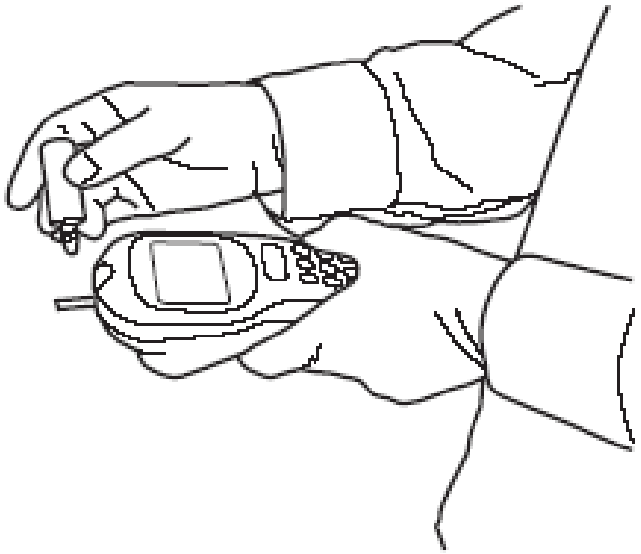
It's a Joint Commission Requirement

QUALITY CONTROL

Control testing should be performed in the following circumstances:

- Required once every 24 hours QC needs to **PASS**
- If a patient test has been repeated and the blood glucose results are still lower or higher than expected.
- When troubleshooting the glucometer
- **<u>Whenever the glucometer has been dropped</u>**.

Running QC



If QC Fails…

- Repeat control level
- If it Fails…
- Open a new set of controls
- If it still fails…
- Glucometer might have issues.
- Contact us immediately

Glucose Patient Testing

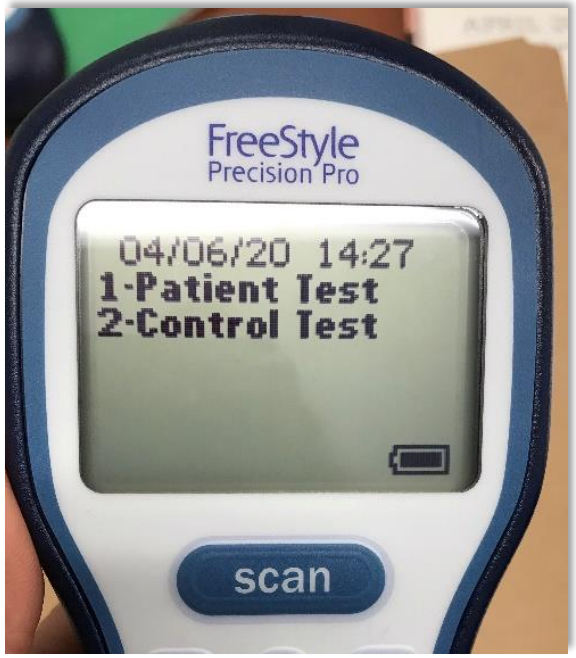
Patient Identification

Always!!!!

Use 2 identifiers:

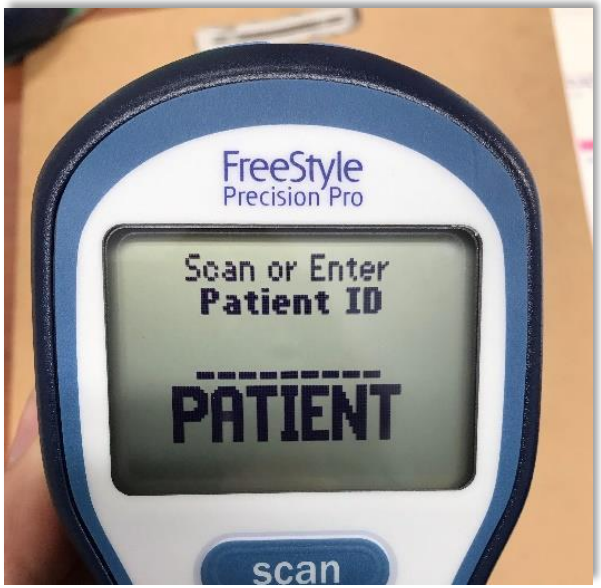
Full Name

Full Social Security Number (SSN)



Patient Testing

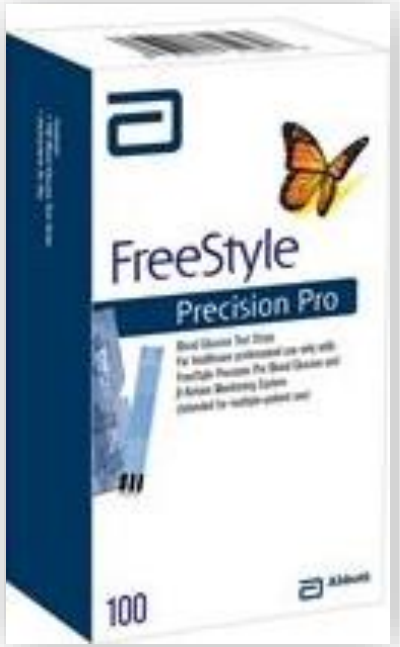
- **Select "Patient Test"**



- Scan patient wristband.
- Scanning is highly recommended!!!

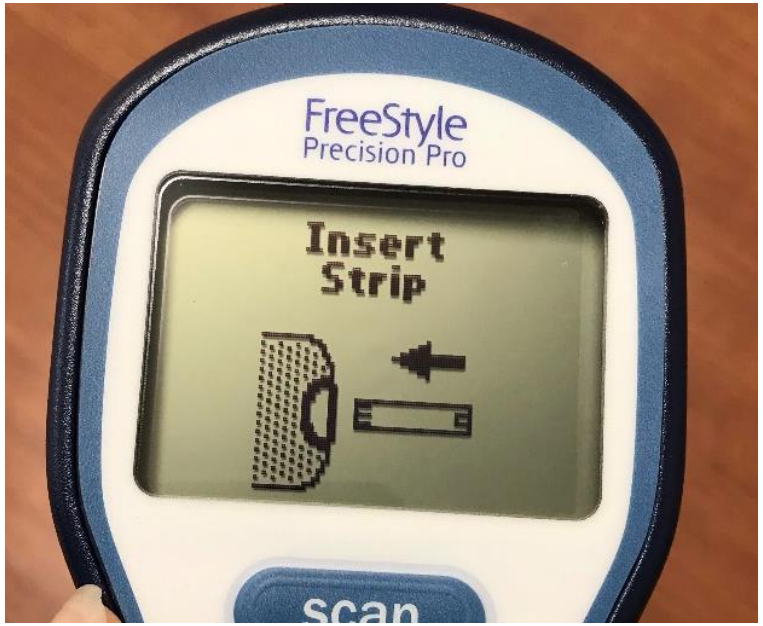
Freestyle Precision Pro Glucometer Abbott

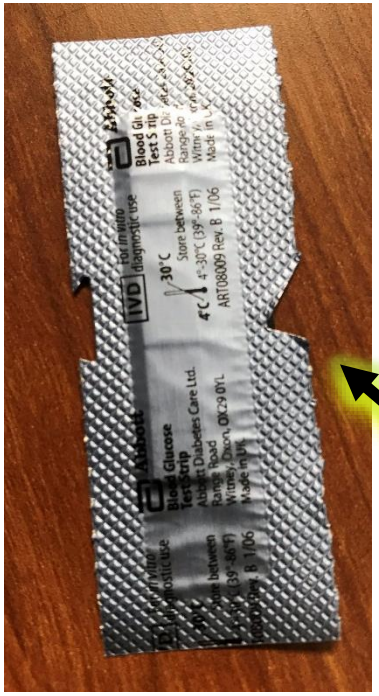
Glucometer Strip



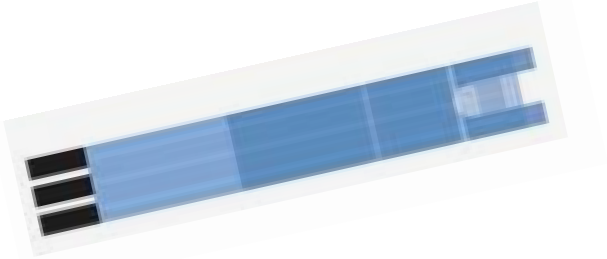
Scan strip

- Do not use test strips after expiration date.
- Do not use test strips that are damaged in any way.
- Do not use the test strip if the foil packet has a puncture or tear in it.
- Use the same scanned strip for testing





- To open strips hold with left hand with barcode facing away from you.
- Grab the lower tip of the notch (see arrow) and tear left and down.
- You should see a print resembling piano keys.
- Handle the strip by the middle, **do not touch the testing area and connectors**



IVD
For in vitro diagnostic use
Abbott
Blood Glucose Test Strip
Abbott Diabetes Care Ltd.
Range Road
Witney, Oxon, OX29 0YL
Made in UK
4°C
30°C
Store between 4°-30°C (39°-86°F)
ART08009 Rev. B 1/06

Testing Strip

Testing area.
Do not touch!!!

Contact Bars
“piano Keys”
Goes inside glucometer

Specimen Collection and Handling

- **Capillary blood from a finger is the specimen of choice**
- Venous and arterial whole blood with lithium heparin, sodium heparin and EDTA are acceptable.

Specimen Collection and Handling

- **Capillary blood from a finger is the specimen of choice**
- Venous and arterial whole blood with lithium heparin, sodium heparin and EDTA are acceptable.
- Clear arterial lines before blood is drawn and dosed on the strip. Avoid air bubbles. Mix thoroughly and perform within 30 min.
- Venous and capillary blood may differ in glucose concentration by as much as 20%, depending on the time of blood collection after food intake.

Specimen Collection and Handling

- Perform hand hygiene and put on disposable gloves
- Hold patient's arm downward to allow blood to flow to fingertip, choose site, usually side of the fingertip is less painful
- Clean site with alcohol or soapy water, allow to dry, use single use lancet to puncture side of finger.
- Gently squeeze finger to get large hanging drop of blood

Specimen Collection and Handling

The most important part of fingerstick technique

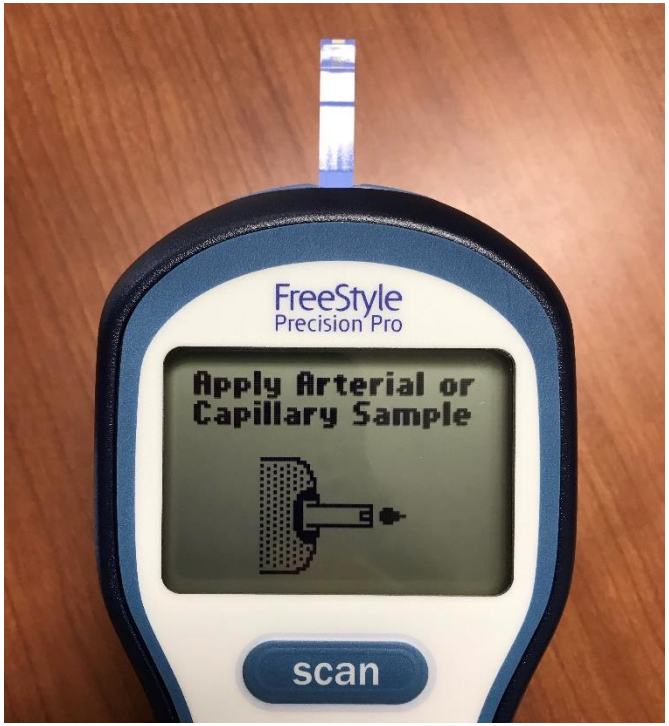
Wipe off the first drop of blood!!!!!!

Specimen Collection and Handling

Never scoop the blood!!!

Blood will get inside strip port and damage the glucometer

When to apply the sample?



Do not apply blood to the strip until the screen says:

Apply sample

- Always keep the meter horizontal during testing
- Finger stick samples must be tested immediately

Specimen Collection and Handling (Cont'd)

Once the test has been completed, the result will be displayed on the screen

- Expected/Reference Range: 65-99 mg/dL
- Reportable Range: 20 – 500 mg/dL

  - If result is outside of Reportable Range, it will be displayed as <20 or >500

Critical Results NF/SG

<50 or >500 mg/dL

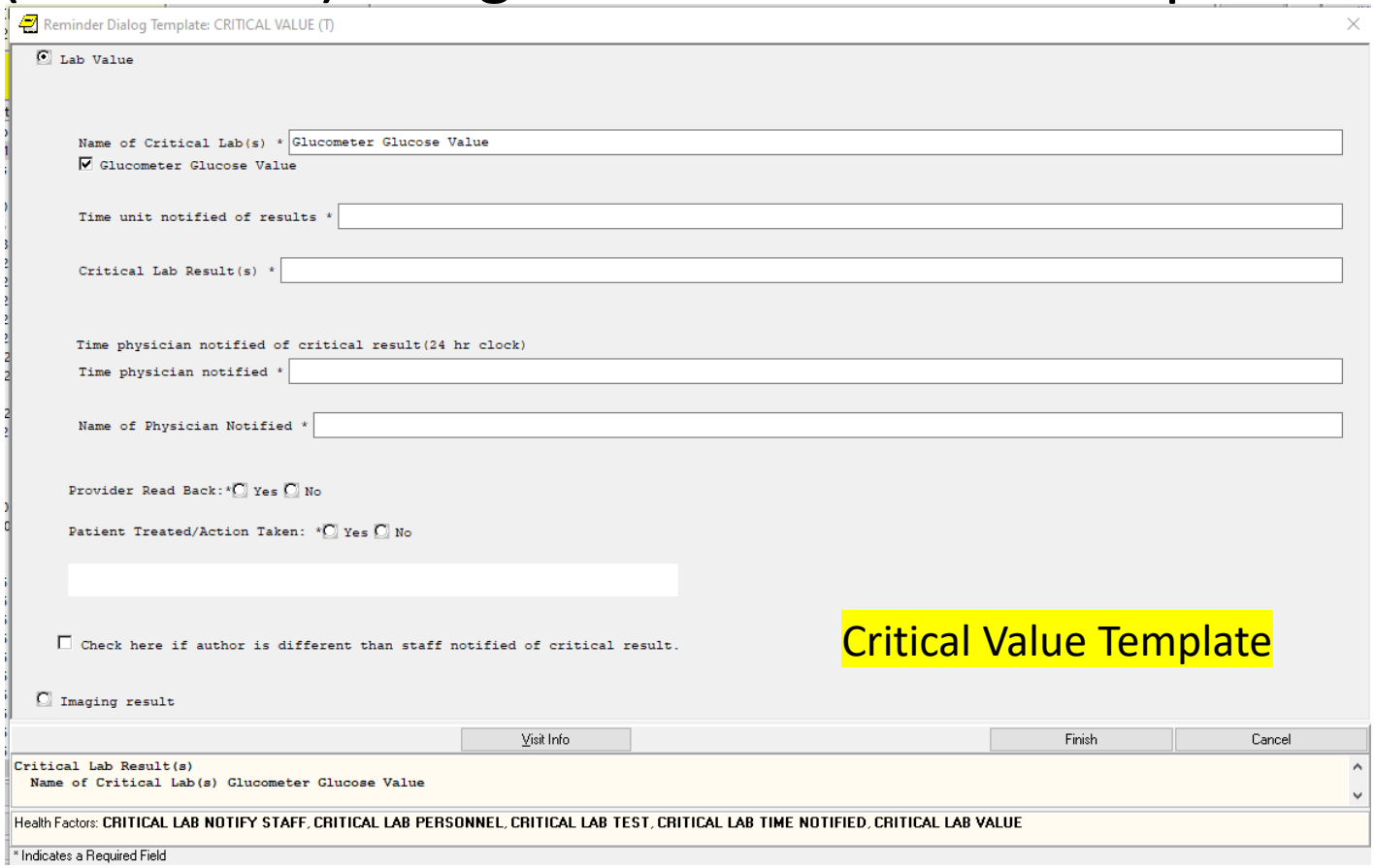
- Resolve discrepancies with laboratory glucose testing.
- **Document in Critical Value Template.**

This is mandatory!!!!

Policy: 113-4 Point of care Glucose Critical Value follow up

Critical Value Documentation

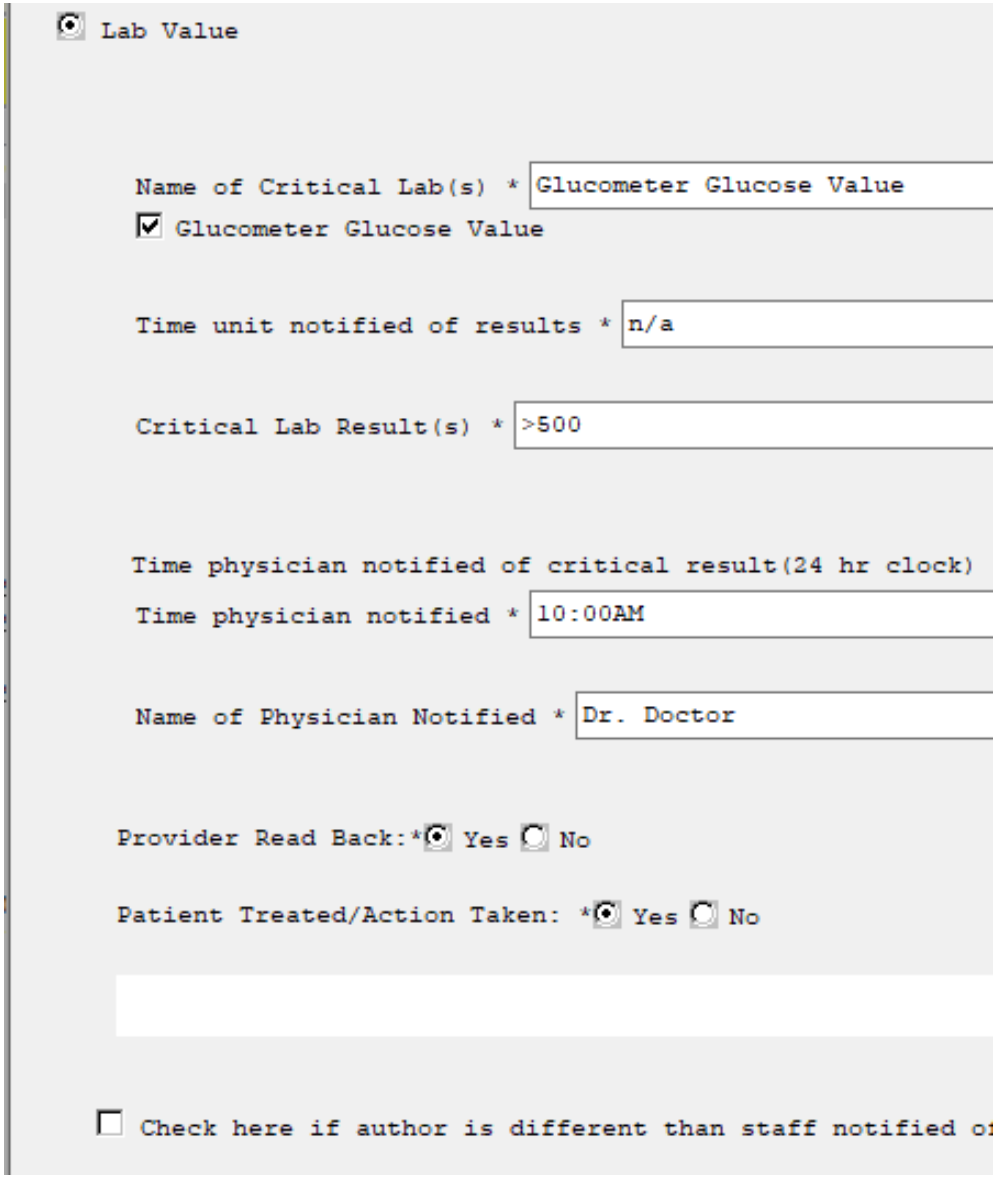
- It is mandatory to document glucose result, notification of the result and action taken (treatment) using the Critical Value Template



Critical Value Template

Critical Value Documentation

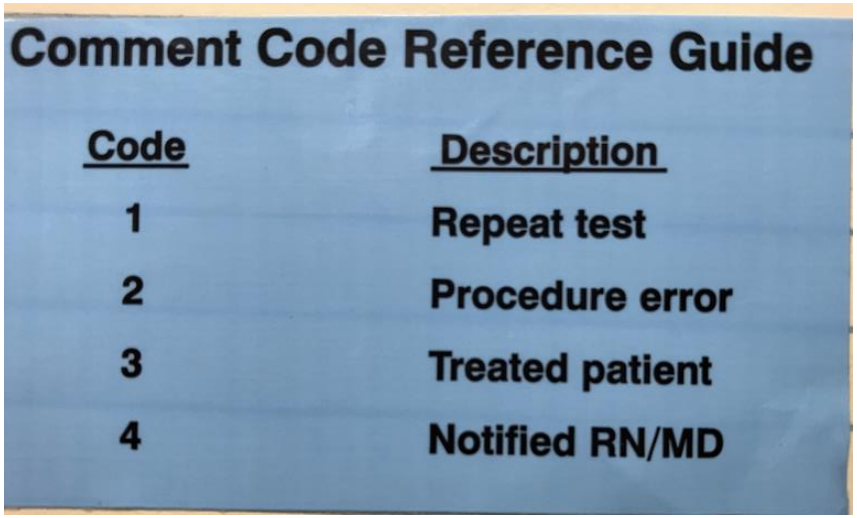
Fill out the template with all the required information



Critical Value Documentation

- Be accurate with the value
- **Do not** use brand names like Accucheck, etc

Comment Codes

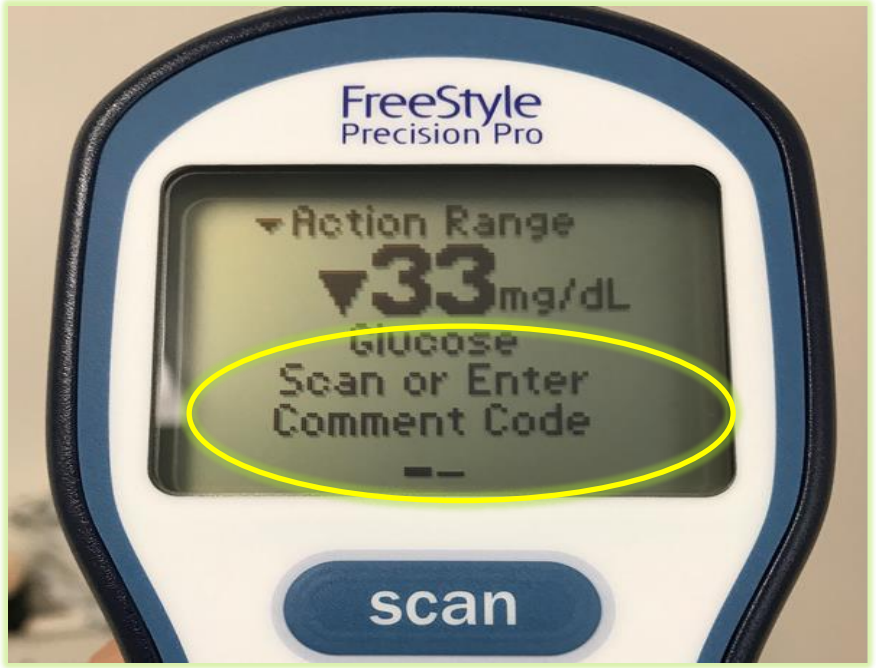


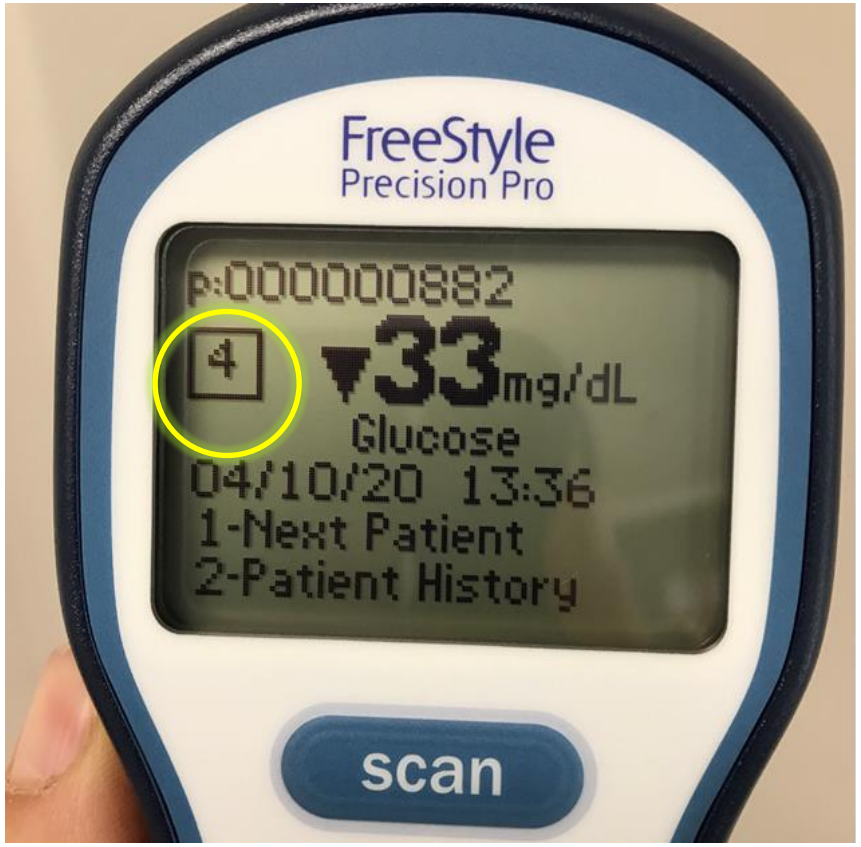
Comment Code Reference Guide

Code	Description
1	Repeat test
2	Procedure error
3	Treated patient
4	Notified RN/MD

- **Required when obtaining a critical value**

Comment Codes





What to do during an emergency

- To be used when no patient ID is readily available

Use all Zeros or all 9's

000-00-0000 999-99-9999

- **Never use consecutive numbers!!!!!**
- **After the emergency it is required to send an encrypted email with the full name and full social of the patient to the Ancillary Testing Coordinators**

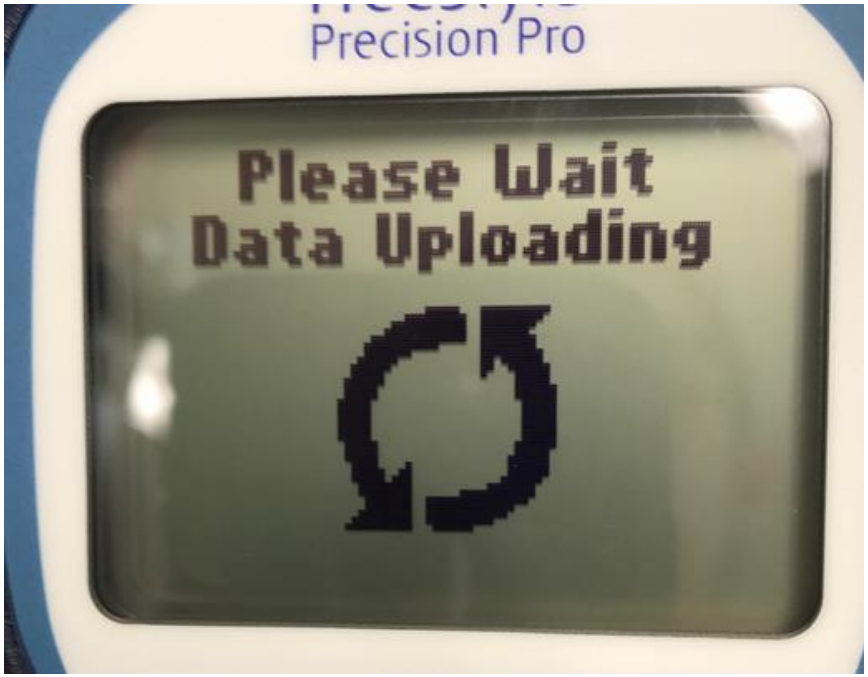
Dock glucometers!!

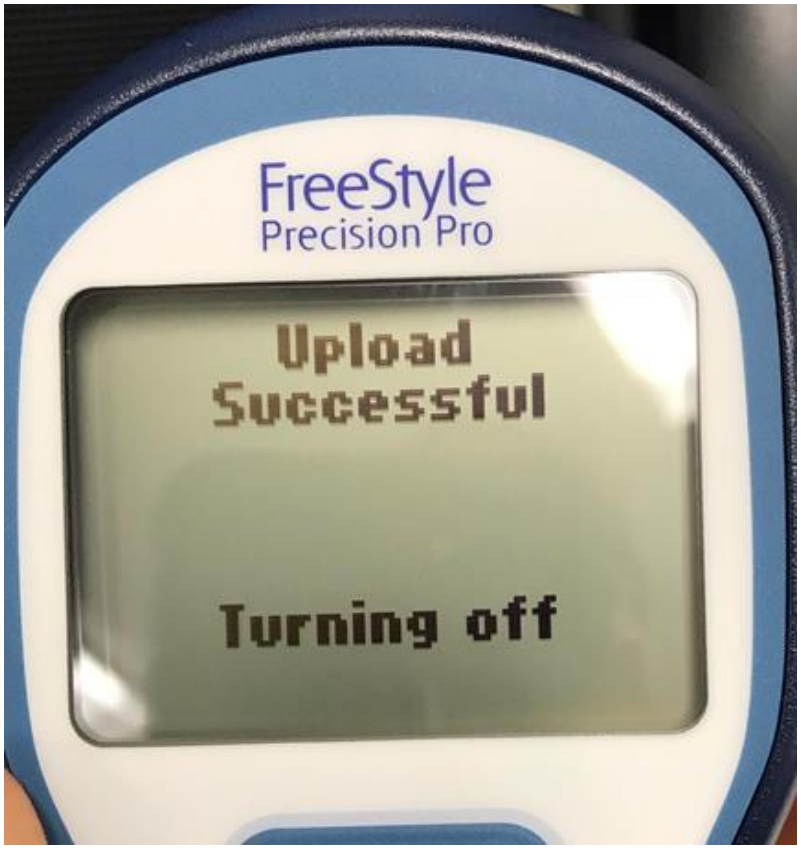
Docking Glucometer:

- Provides a route for transferring data or configurations
- Upload patient's results to the chart
- Provides accountability of all glucometers

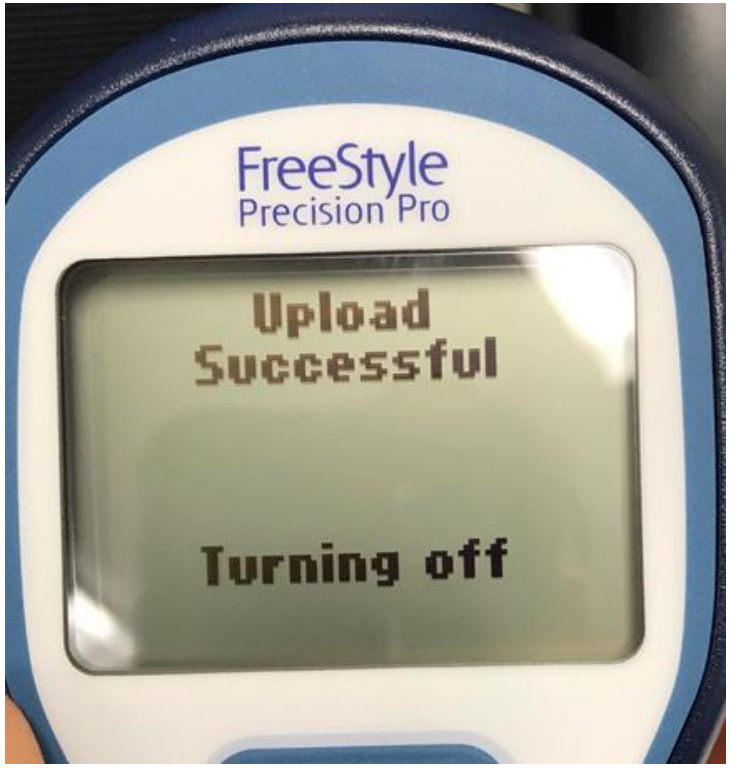
Glucometers are required to be docked as often as possible after patient testing or once every 24 hours

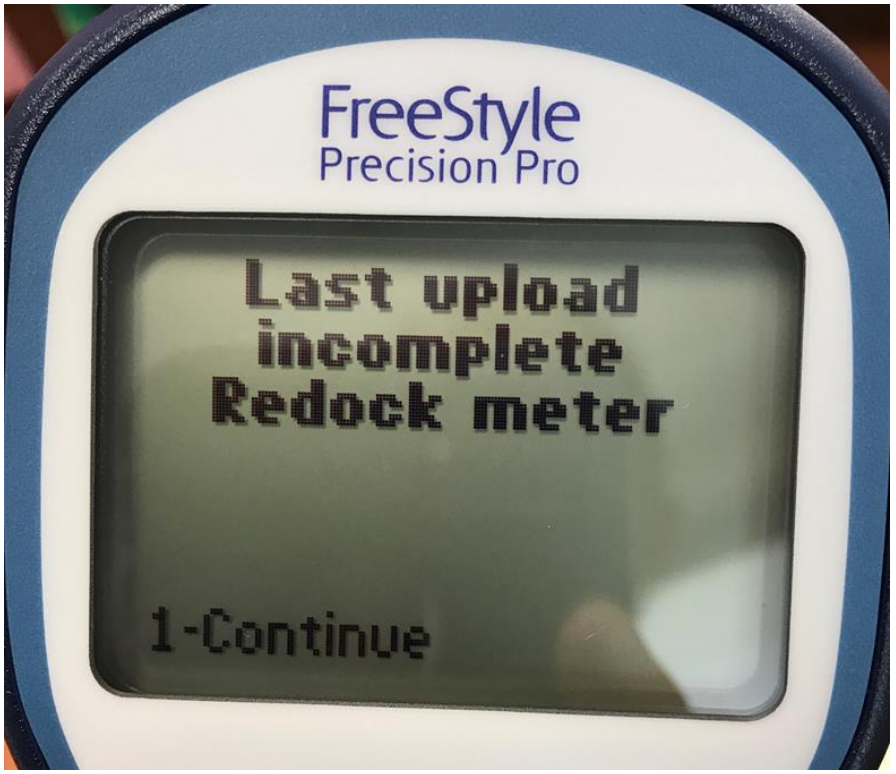
Docking glucometer





Docking issues





Missing Glucometer

- Glucometer can save up to 2,500 social security numbers with results
- Notify the nurse manager immediately
- Look everywhere
- Notify VA police, and Information Security Officer (ISO)
- Notify the Ancillary Testing Coordinators

Flagged Results

The following results will not cross to the patient's chart immediately

- Critical values
- Patient ID errors
- Results ran within 15 minutes of each other
- Patient's without appointments
- Tests ran by operators with invalid operator code

Glucometer Maintenance

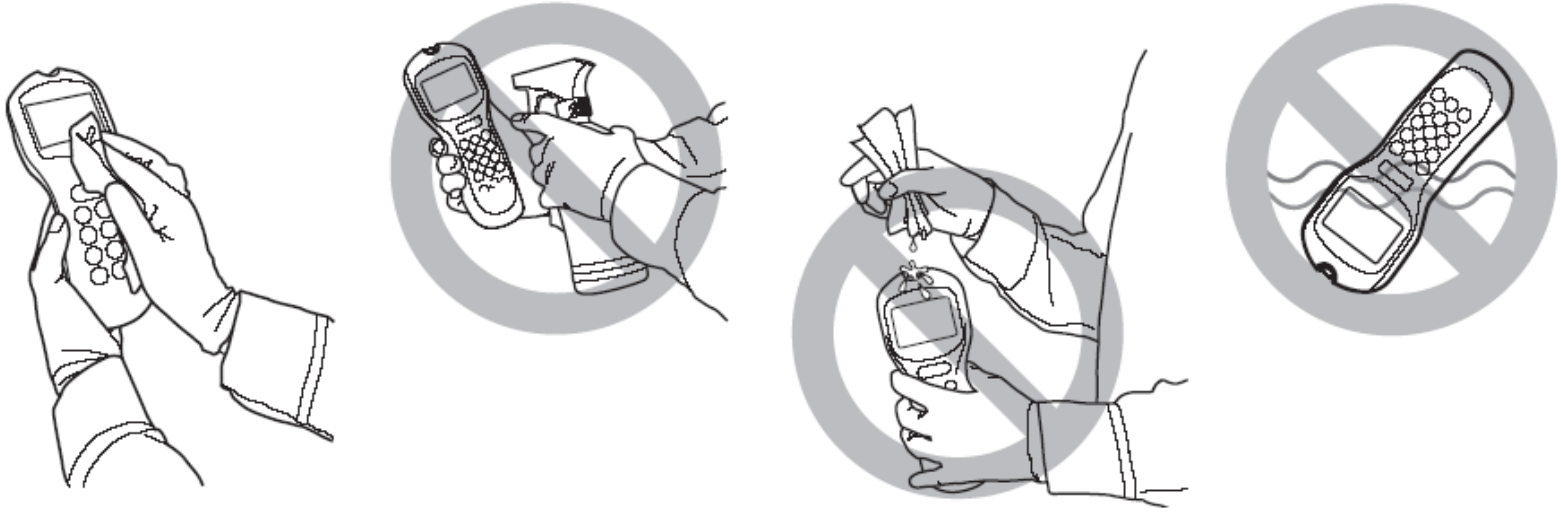
Maintenance

Reusable medical equipment.

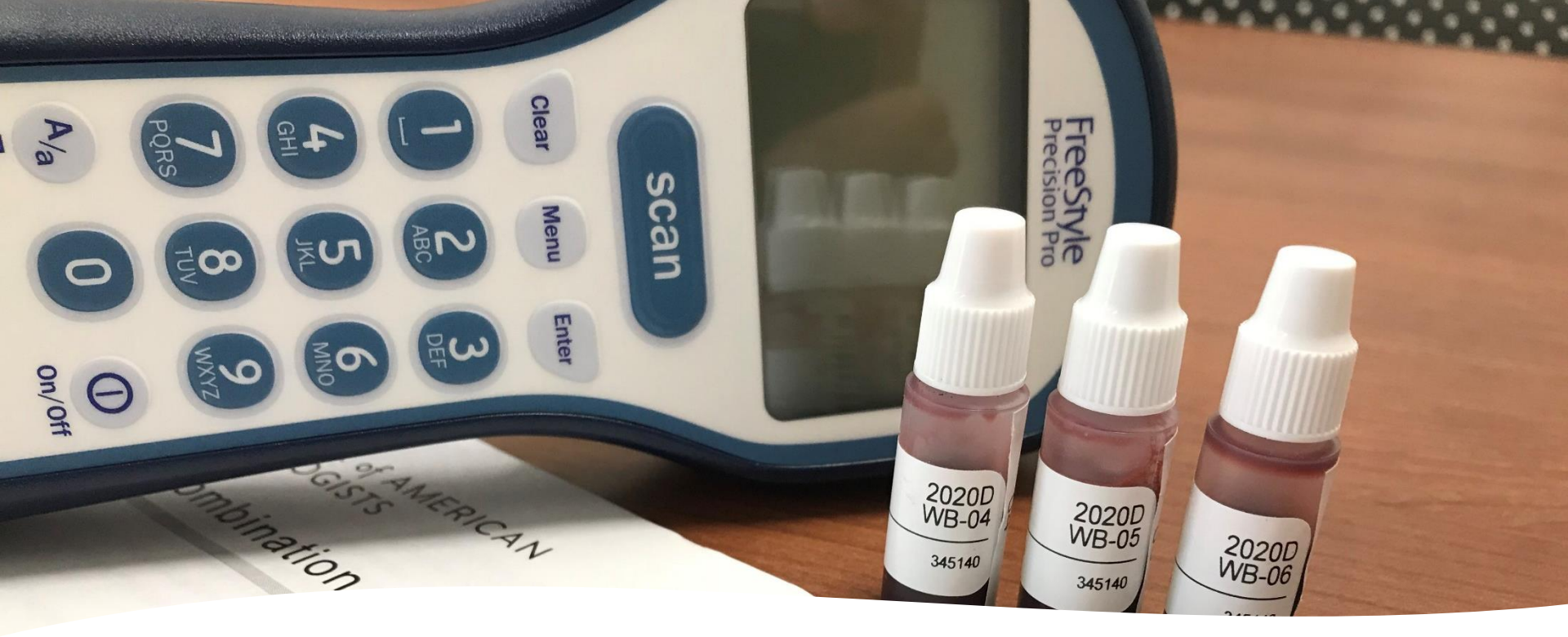
Cleaning and disinfecting the exterior surface of the meter **is**

required after each patient use.

Cleaning the glucometer



IMPORTANT: *If a pre-packaged wipe is used for cleaning, excess fluid should be squeezed out to keep liquid from entering the monitor. Permanent damage could occur.*



Glucometer CAP Surveys

We are a Joint Commission (JC) accredited facility

Proficiency Testing

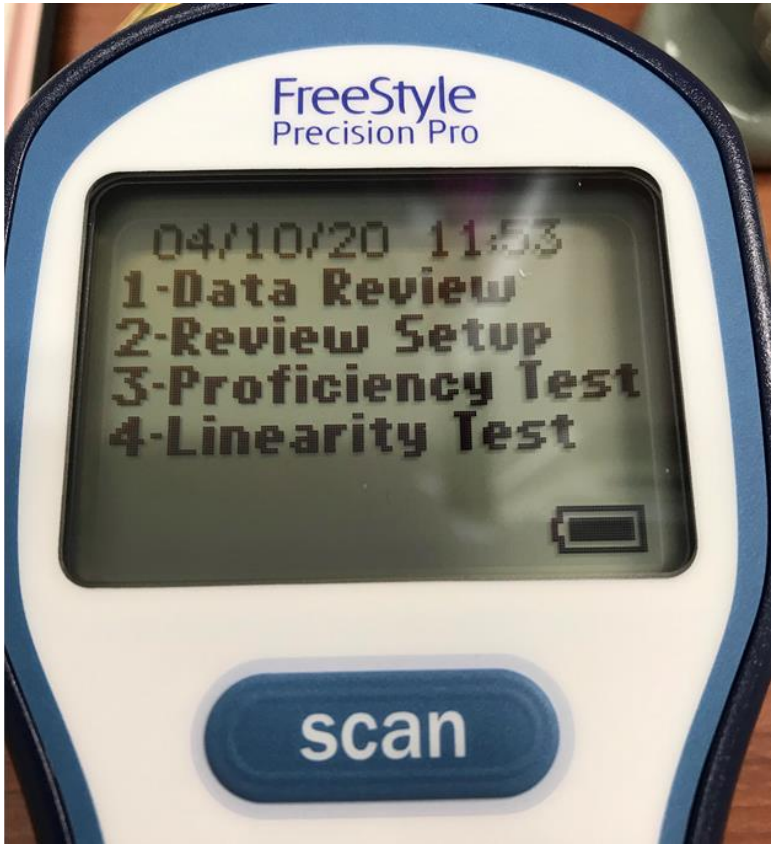
Testing of PT samples must be performed by personnel who perform patient testing.

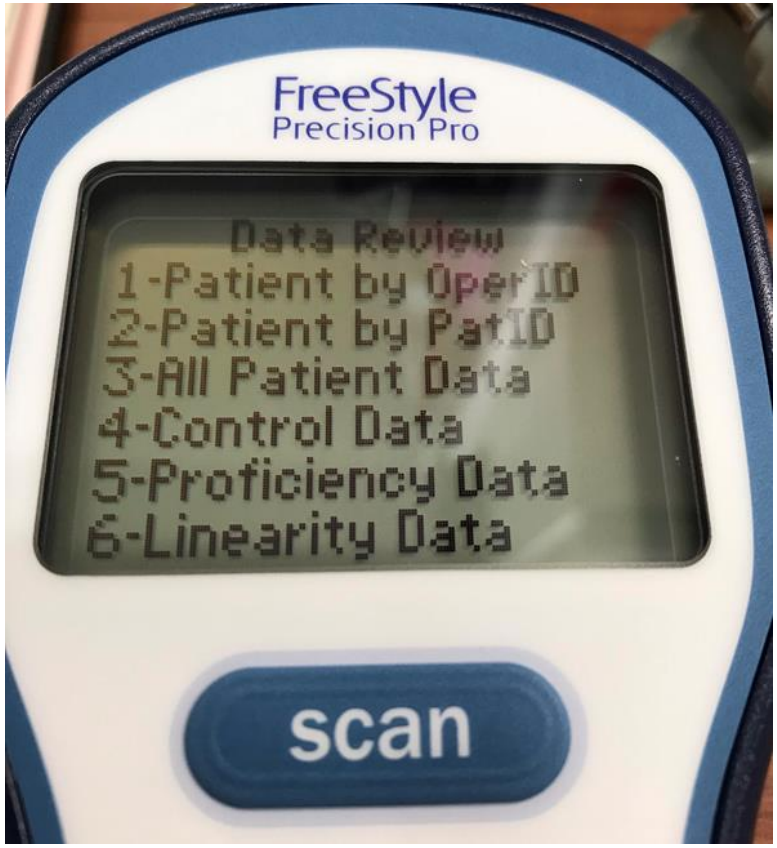
Self Testing is not allowed!!!

- It is against the VA Rules of Behavior and Occupational Health Service Policy to self test or test a co-worker

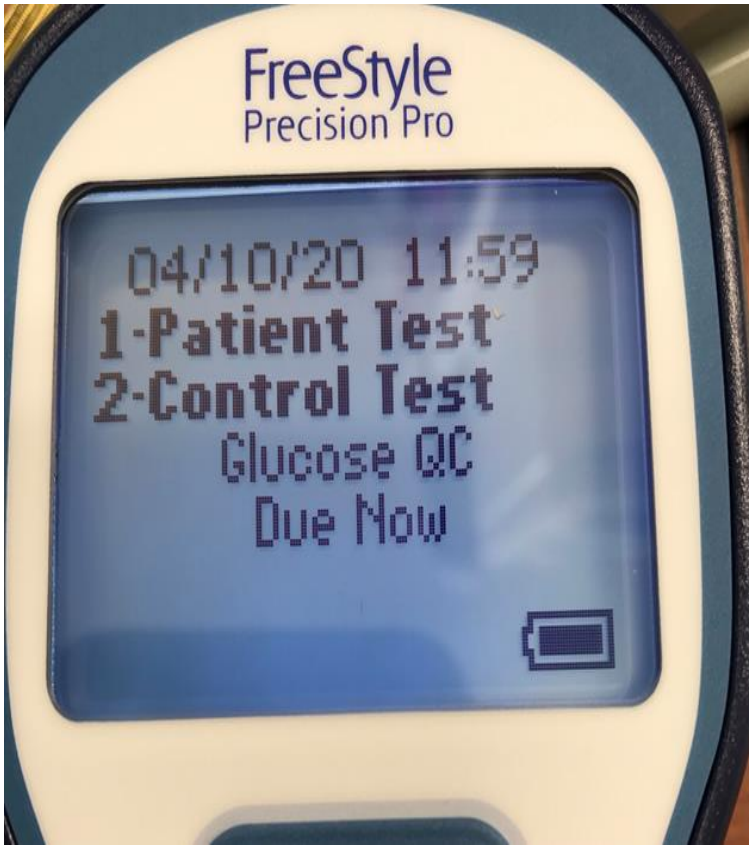
- Employee needs to visit Employee Health or the Emergency Department

Downtime procedure





How to backlight the screen



Let’s do some testing!

If you need assistance raise your hand

- Today your Operator Code and the patient ID will be the card with the barcode

- Run QC
  - Level Low
  - Level High

- Patient Testing

QUIZ
TIME

1. How often should you perform maintenance (cleaning)?

After each patient

2. How long is the quality control solution good for after opening?

90 days

2… What information is documented on the vials?

Open & Expiration dates

3. What are the critical values for the glucometer for NF/SG Veterans Health System?

<50

>500

3…Where is it mandatory to document all critical glucose glucometer results?

Critical Value Template

4. What is the most important part of fingerstick testing?

Wipe off the first drop of blood

5. How often should you download/dock your meter

As often as possible, After each patient testing

6. When should you apply the blood to the strip?

When it tells you to apply the sample

7. When is it mandatory to enter a comment code after testing a patient?

When the result is a Critical Value

8. During a computer downtime situation, the glucose results will not be transmitted to the patient's electronic records. How can you retrieve the patient's results from the glucometer device?

How do you document the results during the downtime situation?

Menu

Data Review

Follow your ward/clinic protocol contingency plan during computer downtime

9. Where can you find your operator ID or DUZ number?

VISTA

^Display user characteristics

10. If you experience any problems with the glucometer or docking station, who do you notify?
Where can you find their numbers?

ATCs

Ancillary Testing Coordinators

Sandra and Dolly

On the Glucometer box

11. There are limitations to the procedure and the use of the glucometer. What patients is the glucometer not intended to be used to perform glucose testing?

Critically ill Patients

Any Questions?

Sandra Pascual
Dolly A. Gonzalez

VHANFLATC@va.gov

Contact information located in the glucometer box