

Accu-Chek Inform II: Training Guide

Introduction – System Components

- **Charging the AccuChek Inform II on the Base Unit**
- **AccuChek Inform II Meter tote**
- **Highlights of New AccuChek Inform II Whole Blood Glucose System**
- **AccuChek Inform II Competency Requirements @ PHSA**
- **Cleaning the Meter**
- **Performing Quality Control – Hands On**
- **Performing a Patient test – Hands On**
- **View Results in Memory – Hands On**
- **AccuChek Inform II Normal, Action & Critical Ranges for PHSA**
- **Sample Types**
- **Test Strip Limitations**
- **Questions ?????**
- **Competency Check List Complete & Return to Trainer**
- **Complete LearningHub course and submit online User ID request**

Training Time for Hands On is approximately 20-30 minutes

New AccuChek Inform II – Components

- ✓ Meter must be docked for recharging-and remain in Base Unit when not in use.
- ✓ Note: AccuChek Inform II meters, totes & meters are labelled as a set – keep together.

Accu-Chek Inform II Meter



BarCode Scanner



Meter Details

- Power Button
 - Turn meter off after use and before returning to base.
- Touch Screen
 - Only use the pad of a finger (No pens or sharp objects)
- Test Strip Port
- Laser Bar Code Scanner (care to be taken not to flash in eyes)
 - Capability - for inputting Operator and Patient ID's, QC and test strip lot #'s.
 - No Patient ID's entered at this time.
- Infra-red contacts in the Base Unit to upload and download information
- RF Card Cover (for Wireless upgrade)-/site specific information/ NOT IN USE

Back of Meter

- Meter re-set button (for meter freeze situation, press gently with paper clip a few seconds to re-boot) contact Point of Care Technologist first. POCT Technologist email POCTLab@cw.bc.ca local 7521 or after hours contact local 7850.
- Obtain loaner meter from POCT laboratory in the interim.
- Re-Chargeable Battery Pack - perform QC after full discharge prior to a patient test.
- Charging Contacts (To base unit)

Accu-Chek Inform II Base Unit(BU)



- Return meter to Base Unit (BU) after each use for best practice
 - Provides automatic data transfer and battery charge.
 - Connected to PC or direct network drop with the power outlet
- Base Unit Lights:
- Blue, Green & Red lights – all indicate charge.

- Green light indicates connection to a PC or network for data transfer
- Red light indicates trouble or BU is rebooting after a power down.
Rechargeable Battery Pack:
- If fully discharged, battery requires **6 hours for full charge. Can be ready for use within 20 minutes in an emergency. Requires Quality Check prior to use. Manufacturer recommendation is 1 hour**
- Contact Point of Care Technologist is Red light flashing is persistent.

BU light shows: Blue if used for a “charge only” base unit;

Accu-Chek Inform II Tote box



- Each Tote Box is labelled & assigned to a Glucose Meter and Base Unit
 - Storage upright or flat
 - Contains meter, test strip vial, QC, capillary tubes, Lancets (per PHSA protocol)
 - Disinfectant 2% Chlorhexidine and 70% Isopropyl Alcohol swabs
 - Quick Reference guide.
 - Clean Surface of Tote Box regularly
- After each use when taken in to patient room

Accu-Chek Inform II Test Strips

Test Strip Box and Vial:

- Obtain from C&W stores (supply chain top up on the units)
- All Lot #'s validated by Point of Care Testing (POCT) in the Laboratory
- One Lot # per year
- 50 test strips in a vial
- Green box on vials indicates is a “maltose free” (no interference)
- Test Strip CODE, Quality Control values and Bar Code is on each vial.
- Scan Bar Code on the test strip vial with each use
- Storage is Room Temperature – away from windows or heaters
- Once opened – replace cap immediately
- Use all strips to the **manufacturer's expiry date – there is no open vial expiry date.**
- Discard plastic Chip Code in box – lab use only.



Test Strip:

- Remove a test strip from the vial – **avoid handling the test strip at FRONT EDGE**
- Replace vial cap immediately after opening.
- Print Side up showing arrows in to meter (push strip in to meter till meter beeps)
- Sample application: Apply to FRONT EDGE of test strip
- Sample requirement: 0.6 uL – **wipe first drop of blood; use second drop of blood**
- Result Time: 5 seconds
- Analytical Measuring Range: 0.6 mmol/L – 33.3 mmol/L
- Hematocrit Range: 10 – 65%
- Fill the target window from the FRONT EDGE of the strip (not on top of the strip)
- Fill the yellow target window completely. An insufficient sample will give an error code.
- Up to 10 minutes to apply sample – (meter time out)
- **No sample re-dose**
- Meter must be kept level during sample application (especially QC testing) – **to avoid fluid entering test strip port**

Accu-Chek Performa Controls (Quality Control = QC):

- Level 1 on vial (LO - on meter)
- Level 2 on vial (HI - on meter)
- Target values are on the Test Strip Vial
- Lot # and QC Target Values entered by Point of Care Testing - Lab.
- Storage is Room Temperature – away from windows or heaters
- **Open Vial Expiry is 3 months** – obtained from Point of Care Lab as per current practice.



Caution: QC material has a blue stain that will mark hands and clothing.

Ongoing Operator Competency Minimal Requirements:

- Operator ongoing competency – 1 patient test & 2 sets of Quality Control per Year
- Clinical areas with minimal patient can use the proficiency testing sample as the “patient”; or “patient test solution” – both obtained from Point of Care Testing – Laboratory.
- Operator Lockout - if minimum requirement is not met annually.
- View LearningHub Module at orientation - ACCUCHEK INFORM II Glucose Meter Point of Care Testing (Locations: Children’s Hospital, Women’s

Hospital; Women's Health Centre; Sunny Hill Health Centre; Canuck Place, BC Cancer Agency – Vancouver Site).

Obtaining the Operator ID

- ✓ Each Operator has a unique Operator ID # - **DO NOT SHARE WITH OTHER STAFF.**
- ✓ Bar Codes – given to the Clinical Nursing Educator/Leader from Point of Care Technologist.
- ✓ (Quarterly Operator Status reports – issued by POCT to the Clinical Nursing Educator/ Leader)

Cleaning and Disinfecting the Meter

- CAVIWIPES @ PHSA – this is the manufacturer approved cleaning wipe
- DO NOT USE OTHER BRAND – eg. ACCEL TB wipes are corrosive to the meter touch screen

Glucose meters and Base Units are cleaned & disinfected:

- After each patient use (meter only) - **before replacing into the meter tote box or base unit.**
- When visibly soiled
- Remove the meter from the base unit
- Uplug Base Unit if it is to be cleaned to eliminate electrical hazard.

To Clean:

- Gently wipe surfaces with Caviwipe to clean or disinfect.
- Do not allow pooling on the touch screen or contact surfaces.
- Same cleaning wipe can be used for all parts of meter/base unit.
- meter has only one opening – strip port entry
- Always allow meter and base unit to thoroughly air dry before putting back into use

To Disinfect:

- If visibly soiled wipe to remove soil then wipe with a 2nd wipe for disinfection.
- To Disinfect / Decontaminate – allow the surface to remain wet for 3 minutes, wipe dry.

HANDS ON - Work on a clean surface. Use paper towel or tissue. Do not place reagents directly on surface.

(HAND OUT METERS, REAGENTS, Temporary Operator ID Bar Codes)



Performing a Quality Control Test:

Remove meter from base unit. Base Units are typically connected to a PC or Network drop – unique by location.


Take meter with tote to a testing area.

1. Press and release the On/Off button
2. Meter performs a Self Check
3. 'Power Up' screen appears
4. Confirm date and time
5. View battery "life" symbol in bottom right corner
6. Proceed to the next screen
 - Manually - touch the arrow symbol
 - Automatically - after 5 seconds

Entering Operator ID (manual)


1. Touch the  symbol to backspace and delete a character entered incorrectly
2. Screen is set to NUMERIC @ PHSA
3. Touch  symbol to confirm
4. Once entry is complete, the main menu appears

Entering Operator ID (Barcode Scanner):

1. Touch and release  symbol in top right corner of screen (black background=scan mode)
2. Hold meter so window of scanner is 4-8 inches above barcode you wish to read.
3. Meter beeps once the barcode has been read successfully and info scanned appears on screen.
4. Scanner turns off after 5 seconds.

Perform a Quality Control (ATTENDEES will perform both Level 1 and Level 2 during Hands ON)

Quality Control is run at a **minimum once every 24 hours – QC Lockout is in effect as per current practice.**

1. Touch 'Control Test'
2. Touch Level 1 (Lo) or Level 2 (Hi) to select the level for the test desired
3. To select lot number for the lot number of the control vial:
 - Touch the barcode symbol  at top right corner of screen
 - Scan the lot number on the control vial - hold meter so scanner is 4-8 inches in front of vial barcode
4. Repeat procedure above to scan test strip vial lot number.

Note: Lot numbers for QC or Test Strips cannot be manually entered.

5. “Flashing Arrow” symbol appears. Insert test strip into test strip port at top of meter.
6. “Flashing Drop” symbol appears.
 - Meter is ready for QC sample
 - Mix the control vials by gently inverting 5 times
 - Remove cap and wipe vial with tissue
 - Discard first drop and apply 2nd drop to FRONT EDGE of strip.

**Note: Test strip must ALWAYS be in meter BEFORE application of QC solution
Position the meter on a flat surface or downwards – DO NOT allow liquid in test strip port.**

Blue dye in solution can stain clothing

Result will appear within 5 seconds.

7. Touch “RANGE” “OUT OF RANGE” symbol to view the QC range.

If Result in range, touch “Check Mark” to return to Main Menu screen.

If result is out of reference range for level, ‘Out of Range’ symbol will flash. A comment is required when QC is “Out of Range” or if there is an “ERROR CODE”.

- Touch “Cloud” symbol in lower left corner of screen.
- Pre-programmed comments appear to select. **(Up to 3 comments can be selected)**
- Touch “Checkmark” in lower right to confirm selection.
- Touch “Check Mark” again if satisfied with comment to exit from screen.

Note: Once exited from QC result/comment screen, new comment cannot be added later

Pre-Programmed Comments for Quality Control Testing available to use in Meters

@ PHSA:

- QC Procedure Error
- Wrong QC Vial
- To Repeat QC Test
- To Remix QC vial
- Repeated QC Test
- Open new Strip Vial

Patient Test - Puncture Site & Sample Collection

- ✓ Puncture site is clean. Clean site with soap and water if required.
- ✓ Disinfectant is 2% Chlorhexidine & 70% isopropyl alcohol

Medical Approval: Dr Benjamin Jung

Version: 1.2

Folder Name: CW\Point of Care\Whole Blood Glucose

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Medical Approval Date: 27 Dec 2016

Implementation Date: 7/2/2019 11:55:59 PM

- ✓ Allow puncture to Air Dry. Refer to skin puncture procedures for appropriate puncture sites and lancets.
- ✓ Use second blood drop for testing
- ✓ Use of microcapillary tube with neonate collections in incubators or difficult patients

Performing Patient Test

(Attendees simulate a Patient Test with Levels 1 - 6 Comfort Curve Linearity solutions, no self-testing with blood)


Arterial, line samples, or skin puncture may be used. Follow reference guides for sample collection.

Neonate or Pediatric Samples may be collected in micro collection pipettes prior to test strip application.


It is mandatory to collect Samples from patients in Incubators using the micro collection pipettes.

Only the approved micro collection pipette can be used.

1. Touch 'Patient Test'
2. Next Screen displayed will ask for Patient ID. **NOT CURRENT PRACTICE AT PHSA**
Pass through this page.
Note: Use of Patient ID is not activated @ PHSA
3. Confirm selection of Patient Test

Touch  in lower right corner of screen to bypass this screen.

Confirm the test strip lot as per in the Quality Control Test procedure.

4. Touch the barcode symbol  at top right corner of screen to enter the lot number of the Test Strip Vial.
Scan the lot number on the test strip vial – hold the meter so scanner is 4-8 inches in front of vial barcode
5. "Flashing Arrow" symbol appears.
Insert test strip into test strip port.
Test Strip Port at the top of meter.

Note: Test strip is ALWAYS inserted into the meter BEFORE application of patient blood sample!!

6. "Flashing Drop" symbol appears.
(up to 5 minutes to apply sample before meter times out – 10 minutes in Neonate setting)

- Can simulate with a Level 5 or 6 Proficiency sample during training.
- Meter is ready for Patient sample.
- Follow reference guides for the capillary puncture.
- Select puncture site
- Choose appropriate capillary puncture device
- Puncture site is clean. Clean site with soap & water if required.
- Disinfect with 2% chlorhexidine in 70% isopropyl alcohol
- Perform skin puncture.
- Remove first drop of blood. (removes any contaminants or residual disinfectant solution which could dilute the glucose value).
- Apply 2nd drop to the FRONT EDGE of the test strip.
- **Result appears after 5 seconds**
- Numerical Glucose value will display if within 0.6-33.3 mmol/L

@ PHSa there are two different configurations programmed:

Configuration 1 Children's Hospital
 Women's Hospital
Neonate ranges Sunny Hill
Displayed Canuck Place

Configuration 2 BC Cancer Agency – all wards & clinics
Adult ranges
Displayed

<p>Normal Range Neonates: 2.6 – 5.5 mmol/L</p> <p>Pediatrics & Adults: 4.0 – 11.0 mmol/L</p>	<p>Action Ranges Neonates: 2.0 - 2.5 & 5.6 – 10.0 mmol/L</p> <p>Pediatrics & Adults: 2.0 – 3.9 & 11.1-30.0 mmol/L</p>	<p>Reportable Range: 0.6 - 33.3 mmol/L Out of Range Low: < 0.6 mmol/L Out of Range High > 33.3 mmol/L</p>	<p>Critical Results Neonates: < 2.0 & > 10.0 mmol/L</p> <p>Pediatrics & Adults: < 2.0 & > 30.0 mmol/L</p>

7. Touch “Range” Field to view the Normal,, Action, or Critical Results Ranges.

Touch “Range , “ Out of Normal Range” , “Out of Critical Range” , “Out of Reportable Range” Fields

to view the PHSA Normal, Critical Range, Analytical Measuring Ranges for Neonates, Pediatrics, or Adults.

A comment is required when Patient Test is “Out of Normal Range” or if there is an “ERROR CODE”.

- Touch “Cloud” symbol in lower left corner of screen.
- Pre-programmed comments appear to select. **(Up to 3 comments can be selected)**
- Touch “Checkmark” in lower right to confirm selection.
- Touch “Check Mark” again if satisfied with comment to exit from screen.

Note: Once exited from Patient result/comment screen, a new comment cannot be added later

Pre-Programmed Comments when reporting a Patient Test available to use in Meters @ PHSA:

- Procedure Error
- NEO GLU over 5.5 to Chk
- To Repeat PT Test
- Repeated Test
- Repeat with Lab Draw
- Doctor Notified
- To Use 2nd Drop
- Open new Test Strips

8. Touch “Check Mark” if satisfied with patient result to exit from screen.

Review a Patient Test or QC Test Result

9. Touch ‘Review Results – from Main Menu Screen’.

- Stored test results are displayed in a sequential list.
- Touch UP or DOWN ARROW to scroll up or down in the list. Results are grouped by date.
- Touch an entry in the list to display the related details.

AccuChek Inform II Test Strip Limitations:

Galactose

Elevated Galactose can occur in neonates with inherited galactosemia (1 per 40,000 in BC).

First glucose value for neonates > 5.5 mmol/L is checked simultaneously with a lab glucose during first 5 days of life. (Collect a lab draw prior to next scheduled feed).

- Clinical assessment of patient important to identify neonatal galactosemia.
- Use a Lab Draw to confirm any unexpected high neonate glucose result. Consult with physician.
- During the treatment of parenterally galactose containing drugs: (eg. Echovist and Levovist) Send to lab, or repeat the test after the half-life of drug.

Triglycerides – interference if > 20 mmol/L

- far beyond average values
- Concentrations above 5.7 mmol/L are considered very high.
- An extremely low number of people have concentrations of 20 mmol/L or higher.

Ascorbic Acid – interference if > 0.17 mmol/L

ICU patients receiving high dose IV ascorbic acid as support

Questions & Inform II Competency Checklist

- When the Competency Checklist is completed by the operators, please collect.
- Return to Point of Care Testing Office at the end of the day for record keeping.

Note: @ PHSA there is a Presentation with a Quiz to view on the Learning Hub. Part of the certification process.

REVISION & APPROVAL LOG

Version	Revision Type	Description of Change	Revision Date	Technical Approval	Medical Approval
1.0		New document	30 Nov 2014	Elvira Kozak	Dr. Cathy Halstead
1.1	Minor	Document title and number change. Upload to QMS document control	27 Dec 2016		Dr. Benjamin Jung
1.2	Minor	Updated POCT Contact, reformatted	July 3, 2019	Calvin Lee	

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