

ICHEM VELOCITY CALIBRATION

- St. Joseph Medical Center Tacoma, WA
 St. Clare Hospital Lakewood, WA
 St. Elizabeth Hospital Enumclaw, WA
 St. Francis Hospital Federal Way, WA
 St. Anthony Hospital Gig Harbor, WA
 PSC

PURPOSE

To provide instructions for the calibration verification on the iChem Velocity instrument.

RELATED DOCUMENTS

J-W-UA-2205 iChem Velocity Operation

SUPPLIES

All reagents are held at room temperature in one kit box.

- Specific Gravity CalCheck solutions
- Color CalCheck solutions
- Clarity CalCheck solutions
- Reflectance CalCheck test strips (2 sets)
- Blue instrument rack

STEPS

1. CalCheck Frequency should be performed quarterly on the iChem Velocity system. If the instrument was moved, a CalCheck should be performed to make sure the instrument is properly calibrated.
2. **CAUTION:** CalCheck strips and CalCheck solutions are **single use only**. Using the CalCheck strips again will cause the reflectance CalCheck to fail.

Reflectance CalCheck

1. The Reflectance is the measure of LED illumination light reflected from the chemistry pads.
2. Remove all of the chemistry test strips present inside the chamber. Chamber must be empty.
3. Pull the Strip Loader out of the system and load the Reflectance CalCheck strips into the Strip Loader. Push the loader back inside the system and rotate 180 degrees to transfer strips to the provider module.
4. Click on the Instrument button on the top right side of the main screen.
5. Click on the Maintenance button at the bottom of the Instrument screen.
6. Click on Reflectance Check button. A series of six screens will display.
 - Waiting for chemistry system to become ready
 - Remove all strips from the strip loader, press Next
 - Add the Reflectance calibration strips and close the door. Enter the Lot number and Expiration Date of the strips. Press Next.
 - Running the reflectance calibration. Takes several minutes.

- Reflectance calibration complete. Result: Pass or Fail
- Refill the chemistry strip feeder with test strips and close the door.
- Press Finish to return to the Chemistry strip lot information screen.
- The CalCheck procedure can be stopped by pressing the Cancel button in the right corner.

7. The reflectance CalCheck results can be reviewed in the Quality Review screen.

Specific gravity, Color and Clarity CalCheck

Position #	Contents	Value	Barcode
1	Specific gravity CalCheck solution	1.002 +/- 0.003	Y
2	Specific gravity CalCheck solution	1.030 +/- 0.005	N
3	Specific gravity CalCheck solution	1.060 +/- 0.005	N
4	Color CalCheck solution	Colorless	Y
5	Color CalCheck solution	Straw	N
6	Color CalCheck solution	Normal Yellow	N
7	Color CalCheck solution	Normal Amber	N
8	Clarity CalCheck solution	Slightly cloudy	Y
9	Clarity CalCheck solution	Cloudy	N
10	Clarity CalCheck solution	Turbid	N


1. Obtain the CalCheck solution tubes as needed according to the table above. The tubes are numbered and must be placed in the rack position in chart above.
2. Gently invert the tubes one or two times to mix the solution
3. Remove the cap from each tube and place the tubes in the Calibration rack according to the table above making sure that the barcode labels are placed at the correct positions.
4. Load the calibration rack onto the right side of the Velocity sampler.
5. The rack will be processed and all calculations performed automatically. The CalCheck liquid reagent solutions are good for 8 hours after opening.
6. When the CalCheck is successful, the date/time of the new SG/CC CalCheck will be displayed on the shift summary screen.
7. The SG/CC CalCheck status (Pass/Fail) can be reviewed in the QC Review screen.
8. The measured values are compared to acceptance ranges stored in the system. If all the values fall within the appropriate ranges, the CalCheck is verified and found acceptable.

CalCheck Failure

1. Reflectance CalCheck Failure
 - Repeat the run using the same lot number
 - Repeat the run using a new lot number
 - If the CalCheck failed again, contact Technical Services.
2. SC/Color/Clarity CalCheck Failure
 - Repeat the CalCheck run using the same tube solutions making sure they are well mixed.
 - Repeat the run using a new lot number
 - If the CalCheck failed again contact Technical Services.

REFERENCES

iChem Velocity Operator's Manual, IRIS 11/2011.

DOCUMENT APPROVAL Purpose of Document / Reason for Change:			
New Document, New Instrument			
<input type="checkbox"/> No significant change to process in above revision. Per CAP, this revision does not require further Medical Director approval.			
Committee Approval Date	<input checked="" type="checkbox"/> Date: <input type="checkbox"/> N/A – revision of department-specific document which is used at only one facility	Medical Director Approval (Electronic Signature)	 12/6/13