KAISER PERMANENTE®
COLORADO LABORATORY

HEMACYTOMETER QC FOR BODY FLUIDS COUNT

PRINCIPLE

To describe the procedure on how to perform Quality Control on the Hemacytometer for Body Fluid counts

SCOPE

All Medical Technologists/Technicians working in the Medical Office Laboratory

POLICY

1. Count must be performed within 30 minutes after the dilution is made.
2. The QC-Beads™ is an unassayed product and 2SD ranges are established at the Franklin Laboratory.
3. Change of Lot numbers. A minimum of a three day lot to lot comparison is performed to ensure that the incoming lot compares well with the current one in use.
4. Hemacytometer QC is performed every 8 hours when patient samples are done.
5. Both sides of the chamber must be counted and the count must agree within 10% of each other.

REAGENTS AND SUPPLIES

1. QC-Beads™ (Hi and Lo) – Available from Genel biomedical
2. Plastic or glass test tube
3. Plastic transfer pipette
4. Hemacytometer cover slip (Alternatively, a disposable hemacytometer w/ attached cover slip)
5. Microscope with 10 x and 40 x (20 x is also acceptable) dry objectives
6. Adjustable pipetter
7. 0.9% Sodium Chloride
8. Petri dish. Line the bottom with moist gauze.

PROCEDURE

1. Invert the bottle several times to resuspend the Hi and the Lo QC-Beads™

2. Prepare a 1:10 dilution with 0.9% Sodium Chloride
   Examples: 10 µl QC-Beads™ + 90 µl 0.9% Sodium Chloride
   30 µl QC-Beads™ + 270 µl 0.9% Sodium Chloride

   NOTE: Recap the QC-Beads™ immediately

3. Mix the dilution well and charge both sides of the counting chamber

4. Place the charged hemacytometer into a Petri dish that is lined with moist gauze and allow the beads to settle for 5 minutes.

   NOTE: It is important that you allow the beads to settle in the hemacytometer for 5 minutes otherwise, the count will yield falsely decreased results.

5. Count all 25 small squares of the center large center square of the hemacytometer under 20x or 40x dry objective.

6. Both sides of the hemacytometer must be counted and results must agree within 10% of each other. If counts do not agree within 10%, charge a new hemacytometer and repeat both counts or make a new dilution if necessary.

7. Record results on the Hemacytometer QC log and enter in the LIS.

REPORTING OF RESULTS

ENTERING QC RESULTS IN THE LIS

1. Enter the average of the two counts in the "ARE" application of the LIS
2. Use the following QC accession numbers:

Location	Lo QC-Beads™ QC Name	Lo QC-Beads™ Accession #	Hi QC-Beads™ QC Name	Hi QC-Beads™ Accession #
Arapahoe	HEMQARL	0-QC-082801	HEMQARH	0-QC-082802
East	HEMQEAL	0-QC-062801	HEMQEAH	0-QC-062802
Franklin	HEMQFRL	0-QC-022801	HEMQFRH	0-QC-022802
Lakewood	HEMQLKL	0-QC-032801	HEMQLKH	0-QC-032802
Rock Creek	HEMQRCL	0-QC-422801	HEMQRCH	0-QC-422802
Westminster	HEMQWML	0-QC-072801	HEMQWMH	0-QC-072802
Wheatridge	HEMQWRL	0-QC-102801	HEMQWRH	0-QC-102802

REFERENCES

1. QC-Beads™ package insert. Bioscreen, Inc., 889 Broadway, New York, NY 1003