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| Purpose | This procedure provides instructions on how to perform quality control for hemocytometer body fluid cell count analysis. |

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| Scope | This procedure is intended for licensed Clinical Laboratory Scientists at Kaiser Permanente South Bay Medical Center. |

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| Policy | * One level of control is tested by the Clinical Laboratory Scientist performing cell counts on a hemocytometer once per 8 hour shift when a body fluid cell count is processed. * The two levels of controls are alternately assayed by AM & PM shifts. i.e. AM shift assays level 1, then PM shift assays level 2. * The night shift (graveyard shift) alternately assays the two different levels on their shift. * QC results must be acceptable prior to the release of patient results. QC tests should be repeated, and corrective actions documented on the appropriate log if QC is out-of-range. |

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| Materials and supplies | * Cell Chex™ Body Fluid Count Control Level 1 and Level 2. * Open controls are stable refrigerated (2-10°C) for 30 days. Discard if there is any evidence of bacterial contamination. |

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| Equipment | * Microscope * Cell Counter * Incyto Disposable Hemocytometer |

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| Safety Precautions | All blood products should be treated as potentially infectious. Refer to the safety manual for general safety requirements. |

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| Procedure | Follow the steps below to complete the cell count on the control specimen. | |
| Title | |
| **Step** | **Action** |
| 1 | * Remove the controls from the refrigerator. It is not necessary to warm the controls to room temperature before use. |
| 2 | To Mix:   * Hold the vial vertically and roll each vial between the palms of the hands for 15-20 seconds.      * Continue to mix by holding the vial by the ends between the thumb and finger, rapidly inverting the vial 20 times end-over-end using a very quick turning motion of the wrist. |
| 3 | * Charge both sides of the hemocytometer with the QC material. |
| 4 | * Immediately recap the control vials and return to the refrigerator. |
| 5 | * Perform manual cell count on QC material as a patient sample following SBMC-PPP-0094 Body Fluid Analysis – Cell Count Manual Cell Count procedure. |
| 6 | * Record the results of the cell count on the Fluid Cell Count Quality Control Log. |
| 7 | * Compare obtained results to the acceptable range found on the QC log. |

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| Procedural Notes | * Acceptable ranges for Red Cells and White Cells will vary from lot to lot. See current QC log sheet for verified/established acceptable range. * New control lot acceptable ranges are established/verified prior to use. Ideally to establish/verify the control ranges for a new lot number, parallel testing is conducted over several days (i.e. 5-10 days). If the new control material arrives late, it may be necessary to perform an abbreviated parallel testing run. When enough data is collected, the mean and 2 SD range is calculated and compared against the manufacturer and peer group ranges. |

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| Controlled Documents | The following controlled documents support this procedure. |

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| **Reference** |
| SBMC-PPP-0094 Body Fluid Analysis – Cell Count |

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| **Form** |
| SBMC-Form-0017 Fluid Cell Count Quality Control Log |

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