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| **Purpose** | To provide instructions for monitoring the volume of blood collected in blood cultures. |

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| **Policy** | * The volume of blood added to blood culture bottles impacts the ability to detect true positives.   + If under-filled, there is a potential for false negatives for septicemia.   + If over-filled, there is a potential for false positive alerts using the automated systems. * The volume of blood added to blood culture bottles will be periodically monitored for appropriate volumes and feedback provided to clinical staff when appropriate. * The monitoring will be conducted during the normal processing workflow of the laboratory and PSCs for all shifts. |
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| **Definitions** | * Standard bottles may be used for visual comparison by adding the lower and upper limit volume to uninoculated blood culture bottles * Appropriate volumes of blood for types of blood culture bottles are as follows:  |  |  | | --- | --- | | **Bottle Type** | **BacT/Alert®** | | Pediatric | 0.5-4 mL | | Aerobic | 5-10 mL | | Anaerobic | 5-10 mL | |

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| **Step** | **Action** | **Responsibility** |
|  | Daily and on each shift, randomly select two blood culture bottles to monitor for adequate blood volume. If no or one bottle is received during the shift, note on Form A.   * If blood cultures were not received on the shift for monitoring, indicate on *Form A: Daily Log* that no blood culture samples were received. * This process is performed **prior** to the specimen receipt process to allow comments to be made in Sunquest if bottle is under- or over-filled (see Step 6) * Individual performing monitoring should be different than individual collecting blood cultures bottles to be assessed. * PSC blood culture bottles are monitored at SMF-Micro lab. | Any of the following may perform monitoring:   * Lab Assistant * Senior Lab Assistant * Phlebotomist * Client Services Supervisor * CLS/MLT |
|  | Compare patient bottle to un-inoculated bottle to estimate the amount of blood added. Use the bottle's volume hash markings on the label to assess.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **BacT/Alert®** **Bottle Type** | **Acceptable Volume** | **Under-filled** | **Over-filled** | **Method** | | Pediatric | 0.5-4 mL | <0.5 mL | >4 mL | Compare to 4 ml hash markings or use standard bottle | | Anaerobic and Aerobic | 5-10 mL | <5 mL | >10 mL | Compare to 5 ml hash markings or use standard bottle | | As above |
|  | Fill out Form A indicating the following:   * Patient aliquot label or accession number * Bottle type (use one line for each bottle being assessed) * Tech Code or initials of the collector notated on the bottle * If blood volume is adequate (acceptable, under-filled or over-filled) | As above |
|  | If feedback is needed (under-filled or over-filled) indicate on form (Y or N) and indicate who the feedback is needed for (Lab or Nursing). | As above |
|  | Complete form by including initials and date of the employee assessing volume and the shift when the monitoring was conducted. | As above |

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| **Step** | **Action** | **Responsibility** |
|  | If an under-filled or over-filled bottle is determined, the SREQ field in Sunquest for the related blood culture accession number will be updated to include one of the following ETCs:   |  |  |  | | --- | --- | --- | | **If** | **Then enter** | **Translation** | | Under-filled | **PEDI** | Please interpret results with CAUTION. Smaller volumes of blood reduce the chances of recovering microorganisms especially in adult bacteremias where the colony counts may be very low. | | Over-filled | **OVER** | Please interpret results with CAUTION. Over-filled blood culture bottles may cause erroneous results. | | As above |
|  | Document all actions taken on *Form A: Daily Log.* Print label after receipt to use on Form A. | As above |
|  | Records are reviewed by supervisor at least monthly. | Supervisor or manager over PSC or client services |
|  | Action taken to provide feedback includes:   * For laboratory personnel, supervisor provides feedback to phlebotomist using *Continuing Employee Development Form A: Performance Feedback Form.* * For non-laboratory clinical staff feedback is provided using affiliate mechanisms of intra-departmental communication and may include:   + Periodic memo or report to nursing supervisor, charge nurse of department or nurse educator.   + Periodic educational in-service with clinical staff. | Supervisor or manager over client services |
|  | Once reviewed, records are maintained as indicated in *Storage and Retention of Records and Samples,* Quality control activity. | Supervisor or manager over client services |