

TEST NAME: Blood culture Collections
Epic Test Code: LAB304747 – Adult Blood Culture, LAB304796 –
Endocarditis Blood culture, LAB304748 – Pediatric Blood Culture,
LAB304871 – Blood Culture (Determine Line Sepsis), and LAB304844
Sterile Fluid in Blood Culture Bottles.

EXPLANATION: FILL VOLUME COMMENT ADDITION

The importance of adequately filled blood culture bottles is being communicated to ensure the blood culture bottles can function properly. When the blood culture bottles are not filled correctly, the recovery of bacteria is directly impacted.

Adult bottles (green & orange): 8-10 mL per bottle

Pediatric bottles (yellow): 1-4 mL per bottle – blood volume - not calculated for this bottle type.



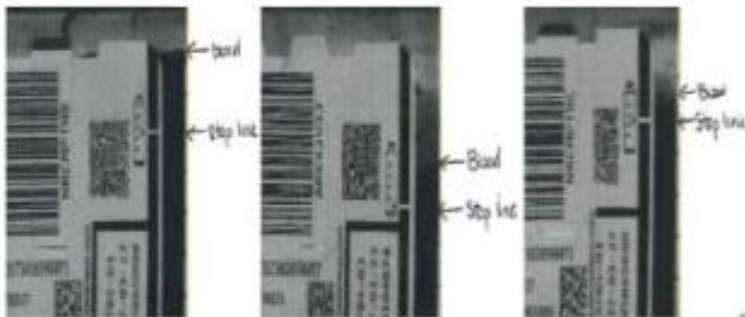
Recent quality monitors have demonstrated the correctly filled blood culture bottles have dropped to 30%. The majority of blood culture bottles received are underfilled at 50% and the remaining 20% are being overfilled. Monthly reports will be sent out with the monthly blood culture contamination rates.

In attempts to help provide some guidance with culture interpretation, the laboratory will be entering a smartphrase “Specimen volume is not within optimal range for bacterial detection.” This comment will be used if the bottles are either grossly overfilled or underfilled. The volumes of these bottles are being calculated on the Virtuo (blood culture analyzer) as up to 20mL and down to 0-1mL of blood.

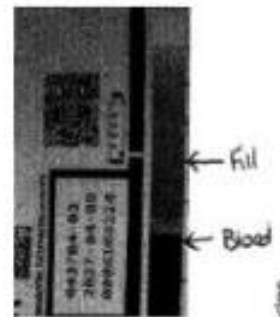
THIS COMMENT IS NOT A SUGGESTION TO RECOLLECT BUT A CAUTION TO BE CONSIDERED WHEN INTERPETING THE BLOOD CULTURE RESULTS. The collectors should be made aware when the volumes are not appropriate.

There is a volume collection line on the Adult blood culture bottle indicating the appropriate fill volume. The instrument is measuring the displacement from this line to calculate the volume of blood added to the bottles. See images as examples of overfilled and underfilled bottles.

Overfilled Examples



Underfilled Example



REFERENCE MATERIALS:

<https://journals.asm.org/doi/10.1128/jcm.00140-07> - “Is the Volume of Blood Cultured Still a Significant Factor in the Diagnosis of Bloodstream Infections?” – ASM Journals/Journals of Clinical Microbiology/Vol45, No. 9.

QUESTIONS ABOUT THIS TESTING

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QUESTIONS

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304-598-4225

ADDITIONAL INFORMATION IS AVAILABLE ONLINE

[WVU Medicine Online Test Catalog](#)