March 14, 2017

To: Chiefs of Service, Attending Physicians, Housestaff, and Other Concerned Personnel

From: Barbara Haller, MD, PhD
Division Chief, Microbiology and Director, Clinical Laboratory

Re: CHANGE IN COLLECTION METHOD FOR BACTERIAL AND FUNGAL BLOOD CULTURES AT ZSFG

Effective March 15, 2017, the ZSFG Clinical Laboratory will be implementing a new blood culture system, the BD BACTEC FX, for the detection of bacterial, yeast, and fungal pathogens in the blood. The new system will require blood collection using the BD BACTEC aerobic and anaerobic bottles, which are specifically designed for the recovery of bacteria. Collection of a fungal blood culture will require a separate collection using a yellow-top SPS vacutainer tube.

Important information about the new blood culture system:

1) For routine blood cultures, collection of both a BD BACTEC Aerobic F/Plus bottle and a BACTEC Anaerobic F/Lytic bottle is required. Distribution of these bottles will start on March 15, 2017. Optimal blood volume for an adult is 8-10 mL per bottle (minimum 3mL blood); exceeding 10 mL per bottle is not recommended. Routine blood cultures will still be incubated for a total of 5 days.

2) Note that bottles will be collected with a vacutainer and butterfly needle. Kits with the correct collection devices and bottles will be available for all inpatient and outpatient locations except the Emergency Department. In the Emergency Department, the individual components needed for proper skin cleaning and collection of blood culture bottles will be available separately and not in a kit. All locations are encouraged to refer to the posted full color poster directions for the proper collection technique.

3) While yeasts, such as Candida sp. and Cryptococcus neoformans, can be recovered using routine bacterial blood culture bottles, a fungal blood culture can be ordered for recovery of yeasts and fungi such as Histoplasma capsulatum. Collect fungal blood cultures in a yellow-top SPS vacutainer tube. Fungal blood cultures are incubated for 28 days.

4) Even though the SPS vacutainer tube is the same tube used for Mycobacteria (AFB) blood cultures, 2 separate yellow-top tubes should be collected if there is an order for both a fungal and an AFB blood culture.

5) Note: It will not be possible to add on a fungal blood culture to a routine blood culture since the SPS vacutainer tube is required for the fungal blood culture.

6) Note: The BD BACTEC FX bottles and instrument have only been FDA-approved for blood specimens. Body fluid specimens will not be accepted in the new blood culture bottles.

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7) Pediatric blood cultures can use the same blood culture bottles as adults. The recommended volume is 3 mL, up to 10 mL per bottle. Inoculate the aerobic bottle if only able to obtain a small volume of blood.

8) Orders for blood culture kits and yellow-top SPS vacutainer tubes may be placed now through Lab Support Services at (415) 206-8199.

9) Once the new blood culture system is implemented, older bottles will continue to be accepted for a period of 2 weeks. However, we encourage all locations to begin using the new bottles and kits as soon as possible. Old kits can be returned to Lab Support Services at (415) 206-8199 for disposal.

Full color posters detailing the new collection method have been distributed. A PowerPoint presentation is available for training purposes. Please contact the laboratory if interested in obtaining these educational materials.

For questions or concerns, please contact Fahm Saechao, Microbiology Supervisor at (415) 206-3587, Phong Pham, Microbiology Supervisor at (415) 206-3597, or Barbara Haller, MD, PhD, Laboratory Director at (415) 206-3595.