NOTICE OF CHANGE OF SERVICE

DATE: December 22, 2009

TO: Housestaff and PCN Physicians, Faculty, and Nursing Personnel

FROM: Christopher R. Polage, M.D.
Director, Microbiology Laboratory

RE: Blood culture switch effective January 25, 2010

As of January 25, 2010, the blood culture bottles in use at UCDHS and the microbiology laboratory will change to the BACTEC System manufactured by Becton Dickinson. This change will improve blood culture performance at UCDHS but requires coordination across all patient care areas. Ordering in EPIC does not change. The following changes regarding pediatric blood cultures, collection, purchasing, non-blood sources and transport should be noted.

1) **Reduced volume pediatric blood culture bottle:** An aerobic “Pediatric” blood culture bottle optimized for 1-3 mL blood volume (range: 0.5 – 5 mL) will now be available and should be used for pediatric patients ≤ 8 years old. There is no equivalent pediatric volume anaerobic bottle and routine submission of an anaerobic bottle is not required in the 0-8 y.o. age group unless anaerobic infection is specifically suspected (see reverse and UCDHS Patient Care Standard XIII-15). For patients ≥ 9 years old, the traditional “Adult” aerobic bottle (optimum volume 10 mL) should be used and both aerobic and anaerobic bottles should be submitted. See reverse and UCDHS Patient Care Standard XIII-15 or UCDMC Policies & Procedures #2025 for recommended volumes and further information.

2) **Collection procedures:** The collection and inoculation procedures may be different for these bottles depending on patient care circumstances. Training of phlebotomy and clinic personnel (PCN’s, UCD Hospital Based Clinics, and phlebotomy draw sites) should be coordinated through Cheryl White (734-7347) or Nancy Badaracco (734-2199). Training for UCDMC inpatient nurses should be coordinated through Elvira Balinsat (email, Lotus Notes), Karen Mondino (734-2405), and Sherri Reese (734-7118). UCDMC Policies & Procedures 2025 and UCDHS Patient Care Standard XIII-15 will be updated to reflect this change.

3) **Purchasing blood culture bottles and collection kits:** All patient care areas / cost centers where blood cultures are performed MUST order new blood culture bottles and collection kits in anticipation of the January 25th, 2010 changeover. It is also recommended that orders of the current BacT-Alert bottles and collection kits be reduced accordingly to minimize wastage. For questions, contact Bill Corbett in Purchasing (734-5931). The following Calcodes apply:
   a. Adult blood culture collection kit (both 10 mL bottles) – 51000796
   b. Pediatric blood culture collection kit (Peds bottle, Chlorhexidine) – 50022053
   c. Neonatal blood culture collection kit (Peds bottle, Povidone-Iodine) - 51000822
   d. 10 mL aerobic blood culture bottle (Silver label, Adults or peds ≥ 9 years) - 40002696
   e. 10 mL anaerobic blood culture bottle (Blue label, Adults or peds ≥ 9 years) - 40002697
   f. 3 mL pediatric blood culture bottle (Pink label, Peds ONLY, ≤8 years) - 40002698
   g. Adaptor / blood transfer device for inoculation from syringe - 40002772
4) **Non-blood sources:** This system is not approved by the FDA for non-blood sources. To allow continuation of the current practice of culturing ascites / peritoneal fluid in blood culture bottles, this source will be validated by the laboratory. When ascites / peritoneal fluid is inoculated into blood culture bottles, bottles should be accompanied by at least 3-10 cc in capped syringe or sterile non-leaking container for Gram stain, Fungal and Mycobacterial cultures when requested. Other non-blood sources will not be validated and should not be inoculated into blood culture bottles. These specimens should be submitted in capped syringe or sterile non-leaking container for Aerobic / Anaerobic bacterial cultures, etc. Non-blood, non-ascites / peritoneal fluid specimens submitted in blood culture bottles may be rejected.

5) **Transport:** The BACTEC bottles are narrow-necked glass bottles but breakage is rare. These have been evaluated by UCD PO&M and may be transported in the pneumatic tube system when carriers with foam inserts are used.

These changes are intended to improve patient care. Please call the Microbiology Laboratory at 734-2544 with any questions.

**APPROVED BY:**

Lydia Howell, M.D., Professor and Acting Chair
Department of Pathology and Laboratory Medicine

cc: Bettye Andreos  Alan Siefkin  Nancy Badaracco
    Carol Robinson  Dean Blumberg  Robert Taylor
    Richard Pollard  Kurt Slapnik  Darrell O’Sullivan
    Joanne Natale  Christian Sandrock  Karen Mondino
    Sherri Reese  Stuart Cohen  Marsha Blakemore

The following table and statements were taken from the latest version of UCDHS Patient Care Standard XIII-15. These are provided for clarity and reference. For definitive guidance, please refer to the original approved document, UCDHS Patient Care Standard XIII-15.

<table>
<thead>
<tr>
<th>Patient Population</th>
<th>Bottle Type</th>
<th>Recommended Blood Volume Per Bottle *</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 year old</td>
<td>Pediatric Aerobic</td>
<td>0.5 - 1 ml</td>
</tr>
<tr>
<td>1 - 8 years old</td>
<td>Pediatric Aerobic</td>
<td>3 ml</td>
</tr>
<tr>
<td>9-14 years old</td>
<td>Adult aerobic and anaerobic</td>
<td>5 - 8 ml</td>
</tr>
<tr>
<td>&gt; 15 years old - Adult</td>
<td>Adult aerobic and anaerobic</td>
<td>10 ml</td>
</tr>
</tbody>
</table>

* Send volume drawn regardless of amount, lab will not reject.

**Pediatrics (patients 8 years and under):** Send 1 pediatric aerobic bottle per site only.
**Nursing:** confirm with physician that anaerobic bottle is not required to fulfill order.

**Patients 9 years – Adult:** Always send 2 bottles (1 aerobic, 1 anaerobic) per site.

**An order for “Blood Cultures”** implies obtaining 2 sets of cultures as defined below, each set should be drawn from separate sites. **One blood culture set consists of:**
1. For patients 9 years old to adult: 1 aerobic bottle + 1 anaerobic bottle = 1 set
2. For neonates and children 8 years old or younger: 1 pediatric aerobic bottle = 1 set