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BD Lab•O

Microbiology News & Ideas

In This Issue

BD Phoenix™ System – *The New Choice in Automated Microbiology*

The BD Phoenix Automated Microbiology System, the newest addition to BD Diagnostics family of instrumentation for the clinical microbiology laboratory, is designed to perform identification and susceptibility testing of clinically relevant bacteria. The BD Phoenix System incorporates state-of-the-art optical measuring technology, Multi-Parameter Determination identification technology, and the AST Advantage System to produce consistently rapid, accurate and reproducible results.

The BD Phoenix System accommodates most laboratory volumes and workflow. The system can simultaneously perform from 1 to 100 ID/AST determinations in three formats: ID only, AST only, or ID/AST combined. There are no reagent additions or off-line tests required prior to testing. The Phoenix instrument's efficient design reduces maintenance, saves tech hours and minimizes downtime.

The system includes the BD EpiCenter™ Data Management System. EpiCenter works to ensure the precision and consistency of patient microbiology results using two proprietary expert systems, BDXpert™ and BD EpiCARE™. EpiCenter includes an extensive epidemiology library designed to be used in real-time and simultaneously by laboratory personnel as well as physicians, infection control officers and pharmacists.

Since its introduction to the marketplace in 2000, the BD Phoenix System has been adopted by more than 800 laboratories worldwide. The experience of one of our newest customers, Tri-City Medical Center, is described in the following article.

BD

Helping all people live healthy lives

TechniTopics

Interview With Tri-City Medical Center

Tri-City Medical Center is a 475-bed, full-service acute care medical center, serving residents of North San Diego County. The Microbiology Laboratory, under the leadership of Dr. Lydia Tiosejo, is comprised of bacteriology, virology, mycobacteriology, mycology and parasitology and processes 45,000 cultures annually. In July 2007, the laboratory switched to the BD Phoenix™ Automated Microbiology System and we recently met with Dr. Tiosejo (Dr. T) to discuss their experience.

BD: Prior to the BD Phoenix System, you used another automated ID/AST system. Why did you decide to switch?

Dr. T.: Since acquiring the MicroScan® WalkAway® 96 (Dade-Behring, Siemens), we had to buy and discard a lot of consumables, which strained our budget, since some of the consumables, including reagent waste, had to be disposed of by a contracted company. Also, use of the rapid MicroScan MIC panels became a moot point since there were antibiotic exceptions where we had to retest using a back-up method for confirmation. Increased workload and the purchase of more expensive back-up tests was not a choice, but rather became an undesirable consequence.

In addition, conventional MicroScan positive and negative panels took 18-24 hours or more before MIC results became available. Physicians who called early in the morning to get results were disappointed when told that none were yet available. So, when our MicroScan contract expired in June 2006, we decided not to renew for another five years, a decision that was readily agreed to by Hospital Administration.

Training at TCMC (left to right): Shameem Nathasingh (BD), Judy Clark, Lorraine Lambert, Mahin Nassim, and Joy Relf.

BD: Why did you choose the BD Phoenix ID/AST System?

Dr. T.: I talked to several Vitek® 2 (bioMérieux, Inc.) users, and the decision was made early on not to try out this instrument. Trek Diagnostics was considered in the very early part of the decision-making process, but then this was eventually ruled out too.

We already had the BD BACTEC™/ BD EpiCenter™ systems in place for almost three years, and knowing that EpiCenter would also be available for the Phoenix system made us want to look into this instrument more closely than the rest of those available in the marketplace.

BD: Describe your Phoenix training and installation experience.

Dr. T: Training was done thoroughly and systematically by BD personnel through a checklist that ensured everyone who was trained received in-depth knowledge regarding operation of both the Phoenix and the EpiCenter systems. Trainees were each given a chance to set up their own panels and learn EpiCenter on an individualized basis.

I found these training sessions to be a real plus since demonstrations don't have as much of a dramatic effect on anyone who is trying to learn new instrumentation. Experience has always shown that hands-on training is the best. The fact that BD has not limited

Training at TCMC (left to right): Mahin Nassim, Joy Relf, Shameem Nathasingh (BD), and Judy Clark.

this specialized training to individuals who went for advanced training to the facility was a very big advantage for the department. The staff really feels that each one of them received the same level of training that everyone else did.

Installation of the Phoenix system went very smoothly from Day 1. This was a combined effort between BD and our IT Department. The BD Field Service Engineer and BD Implementation Specialist as well as the Hospital IT Applications Manager all worked closely together to make this day a living reality.

In order to allow for proper equilibration of the instrument, we waited until Day 2 to run patient specimens. The BD Implementation Specialist was available to work with the staff for the rest of the week to help each one through the learning process and smooth out any problems that may have arisen. Very fortunately, no such anticipated problems came up and so we were definitely on our way to getting Phoenix/EpiCenter as an integral part of our daily activities in microbiology from Day 3 on.

BD: Your LIS uses Cerner Millennium® (Cerner Corporation). Was Phoenix compatible with this system?

Dr. T.: This presented no problems at all. The main reason for the successful interface connection was that all

testing during Phoenix Validation was conducted in the Cerner Testing area called CERT. Our IT department made sure that all analytes were defined correctly and that all translations were compatible between the LIS and the EpiCenter system. BD personnel, most especially Roger Nicolson, plus our very own IT Applications Manager, David Pace, worked hand-in-hand to ensure a smooth transition to go-live in Cerner PROD.

"The microbiology workload has eased up a lot since we converted our ID/Susceptibility testing instrument from MicroScan to Phoenix."

BD: Since "going live" with the Phoenix system, describe your experience.

Dr. T: The microbiology workload has eased up a lot since we converted our ID/Susceptibility testing instrument from MicroScan to Phoenix. There is no instrument maintenance to do first thing in the morning. The techs just pull the print-out of the automatic report provided by the Phoenix system daily at 6 AM, review it, and then file it.

An assigned med tech looks into the "Needs Attention List Report" daily and passes this on to the individual workstations.

Dr. Tiosejo at BD's training lab in Sparks, MD.

In the beginning, it was difficult for the bench techs to adjust to using the 0.5 McFarland standard; but with practice came improvement and this critical step has been successfully conquered by all.

We discard our few Phoenix consumables into red-bag-lined containers, which are then picked up by Environmental Services for incineration. There is no longer any need for a contracted company to discard the reagent wastes, MIC panels, tray lids, etc.

BD: You recently identified an unusual organism on the Phoenix system. What was it?

Dr. T: The most interesting ID we have had since go-live at the end of July was *Lactococcus garvieae*, isolated from an 80-year-old gentleman with paraparesis, fever, and severe back pain. Multiple positive blood cultures were very consistent with endocarditis. Infectious Disease wanted the Phoenix organism ID confirmed by a reference laboratory. ID sequencing results from the reference lab were consistent with what the Phoenix system reported.

The Microbiology staff at TCMC. Back row (left to right): Shameem Nathasingh (BD), Karen Von Selbst, Edison Tabzon, Ann Arico, Bob Felland, Judy Clark, and Dr. Tiosejo. Front row (left to right): Marsha Livingston, Lorraine Lambert, Mahin Nassim, and Joy Relf.

Since this species is not included in the Phoenix AST taxa, we performed an alternate method. The patient was treated with IV-penicillin, and underwent decompressive laminectomy and debridement of tissue with good improvement. His last two sets of blood cultures on August 19 continued to be negative. The patient was discharged to a skilled nursing facility 5 days after the start of antibiotic therapy.

BD: What value do you derive from the BD EpiCenter™ Data Management System?

Dr. T: The EpiCenter system provides us with myriad information that is not available in any other ID/Susceptibility testing instrument that we have worked with in the past.

Go-Live at TCMC. Back row (left to right): Butch Aying, Bob Felland, Dr. Tiosejo, and Judy Clark. Front row (left to right): Cheyenne Squieri (BD) and Joy Relf.

The fact that EpiCenter is interfaced to the BACTEC instruments is an added plus. Blood culture contamination rates, provided to Hospital Administration monthly as part of our hospital-wide Strategic Plan, can readily be obtained through the EpiCenter system.

In addition, the antibiogram, which is made available to all of our physicians and client stations every six months, can also be readily created from EpiCenter.

But as we all know, words never tell the whole story – check out the smiles in the accompanying photographs!

If you are interested in learning more about how the BD Phoenix Automated Microbiology System can bring smiles to your laboratory, mark the appropriate box on the reader response card.

TechniTopics

Resurrecting the Lost Art of Making Culture Media: Essential Disaster Preparedness for the Clinical Microbiology Laboratory

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Don Callihan, Ph.D., Senior Clinical Microbiologist and Biosafety Officer, Diagnostic Systems

The typical clinical microbiology lab of 30-40 years ago was located in a remote corner of the hospital, usually in the basement. Packed into the microbiology area were an incubator, a refrigerator-freezer, a microscope and an autoclave. Biosafety cabinets didn't exist; specimens for AFB testing may have been processed in the chemistry department's fume hood. One or two technologists were assigned to the microbiology schedule on a single day shift. Those old-time microbiologists did everything manually: they made culture media in glass Petri dishes (remember those?) and sugar-utilization biochemical tests in glass tubes (and both were reusable); planted specimens; examined the cultures; interpreted results; and sent handwritten paper reports to physicians and patients' charts. The Bauer-Kirby procedure was just becoming standardized for antimicrobial susceptibility testing and the entire battery of disks fit onto a single 100-mm Mueller-Hinton Agar plate. Reading liquid blood cultures was the morning workout routine, an isometric exercise, where 100-mL bottles were raised to the overhead light and visually examined for hemolysis and turbidity. Culture isolates were identified by phenotypic morphology and smelling colonies! Automation? Not even in your wildest dreams. QC? Just another two letters in the alphabet. There were no pagers, cell phones, or computers, either!

Thankfully, those days are long gone and manual methods have given way to advanced instrumentation. The media we made on bench tops has given way to consistently dependable commercial media. "See and smell" identifications have given way to pragmatic, methodical, instrument-dependent, procedural approaches. Non-validated methods are not acceptable and there is little tolerance for any inability to perform testing upon demand.

These advancements notwithstanding, the occurrence of an influenza pandemic could create a situation where "It's like déja vu all over again," in the memorable words of Yogi Berra. In the Fall 2006 issue of *LabO*™ (Vol. 17, No. 2), we shared our thoughts on pandemic influenza and its potential impact on the clinical microbiology laboratory. In this article we are taking that theme a step further and proposing that laboratories consider resurrecting the lost art of making their own culture media.

In the event of a pandemic or other long-term disaster, your media inventory could quickly become exhausted and replacement products may not be deliverable to your laboratory. We all rely heavily on the national delivery infrastructure. During the first wave of a flu pandemic, up to 30% of drivers will be sick or attending to their own families just like the rest of the population. If travel is restricted to contain the spread of influenza, raw material supplies may be limited and manufacturing plants, without workers or raw materials, might be forced to shut down.

Now is a good time to rediscover the lost art of making media in your own laboratory. To get you started, here are some suggestions for preparing three media that are essential for any microbiology lab providing services during an extended disaster situation:

1) Chocolate Agar for the primary isolation of the most common pathogens, regardless of specimen type;
2) MacConkey Agar for isolation of gram-negative bacteria; and
3) Mueller-Hinton Agar for disk diffusion antimicrobial susceptibility testing.

Materials

- Purchase dehydrated culture media, growth supplements and sterile Petri dishes (see table below).
- Obtain Erlenmeyer flasks with double the capacity of the media volume you will prepare. Generally, 2-L flasks work best for preparing media in 1 L batches. You will also need to purchase flask stoppers, aluminum foil, or craft paper to cover the flasks.
- Identify a source of laboratory grade (Type 1) deionized water.

Facilities and Equipment

- Locate areas in your laboratory or hospital where media making could occur. You will need a level surface with enough space for approximately 50 plates (100-mm diameter).

Cat. No.	Description	Qty
228950	Difco™ GC Medium Base (Chocolate Agar Base), additional supplements required	500 g
212306	BBL™ MacConkey II Agar	500 g
211438	BBL™ Mueller Hinton II Agar	500 g
351029	BD Falcon™ Petri Dishes, sterile (100mm x 15mm)	500/case

Cafeteria kitchens may be suitable for this purpose.

- Locate balances, weigh papers or plastic boats, and spatulas.
- Hot plates and/or Bunsen burners will be needed to dissolve the media. (Caution: Media containing agar will "boil over" easily. You will need a controlled heat source and insulated, liquid impermeable gloves, as well as other appropriate personal protective equipment [PPE] before attempting to make your first batch.)
- Identify autoclaves in which to sterilize liquid media. Remember, autoclave operation requires PPE; i.e., autoclave gloves, a rubber apron, and full face shield at a minimum.
- Locate water baths in which to cool the media following sterilization. Media needs to be cooled to 45-50°C before pouring.
- Identify the maximum amount of surface area needed for each batch of medium prepared.
- Consider purchasing a peristaltic pump for dispensing the molten liquid with tubing that can be sterilized.
- Approximately 20 mL of molten medium is required per 100-mm plate. Calculate the number of cultures you process daily for your in-patient specimens, especially for blood culture and respiratory culture isolations, and project your daily volume based on an in-patient population admitted for complications due to pandemic influenza. This is the number of media plates you will need on a daily basis.

Procedures

The *Difco™ & BBL™ Manual** is a ready resource for learning the nuances of media preparation. Here you can find specific information on preparing each medium as well as a general reference for media preparation practices and media components.

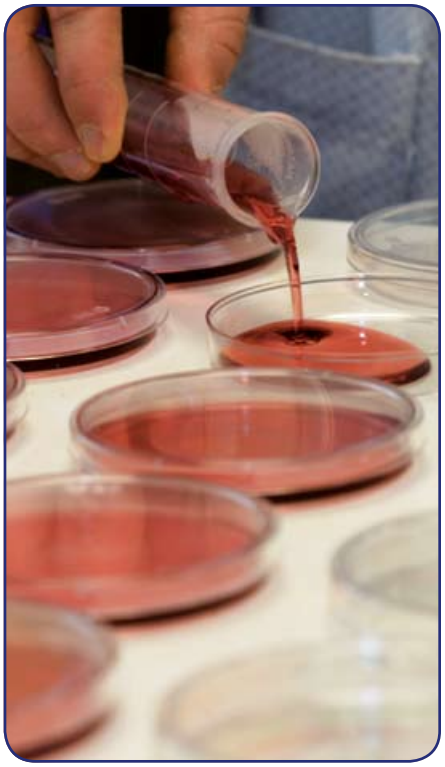
- Chocolate Agar from GC Medium Base, Hemoglobin, and IsoVitaleX™ Enrichment (p. 241). Some considerations when making this medium include the need for thorough mixing of all ingredients while bringing the medium to a boil and the importance of cooling the medium before adding IsoVitaleX Enrichment to minimize destruction of heat-labile growth factors such as NAD and vitamins.
- MacConkey Agar (p. 338). This medium has no special preparation instructions. Note that the formulation for MacConkey II Agar was designed to improve the inhibition of swarming *Proteus* species.
- Mueller-Hinton Agar (p. 376). Also refer to the CLSI document M2, *Performance Standards for Antimicrobial Disk Susceptibility Tests*, for additional details on preparation, storage, and QC testing. Note the requirement for a uniform depth of approximately 4 mm in order to produce satisfactory disk diffusion results.

Training Plan

As with all laboratory tasks requiring technical skill and competency, you will need to develop written procedures and a training plan.

- Develop a media preparation team and train members in their roles and responsibilities for media during a crisis. Assign key members to monitor availability of supplies and expiration dating of materials with limited shelf life. Review the media preparation plan during annual evaluation of the laboratory's disaster plan.
- Schedule a drill to carry out this exercise using all of the available equipment and areas that will enable compliance toward achieving readiness in being able to make your own media.

All of the assumptions of "normal" will be altered during a flu pandemic.



For example, Gram stain morphology may be very different when determined from colonies grown on Chocolate Agar when you are used to examining growth from Sheep Blood Agar, so it is important to be familiar with Gram stain morphology on both media. When planning a training program, consider these and other factors when developing your laboratory pandemic preparedness plan.

Summary

Although an influenza pandemic does not appear to be imminent, most public health experts agree that one will strike in the next 10 years. Providing adequate and competent healthcare is just as much a real goal for the clinical laboratory community as is business continuity during an electrical grid failure, a flood, earthquake, or a destructive storm.

The common goal of disaster planning, no matter what event you are preparing for, is being prepared so that critical work can continue for the duration of the crisis. As a clinical microbiologist in the tradition of Pasteur and Koch, you will be well served by knowing how to make your own culture media.

*Available on our web site at www.bd.com/ds/technicalCenter/inserts/difcoBblManual.asp

Product Highlights

BD BACTEC™ MGIT™ 960 and BacT/ALERT® MB Systems Compared

At the 107th ASM meeting in Toronto, Ontario, Canada, Dionne et al. of The Johns Hopkins Medical Institutions presented their study comparing the BACTEC MGIT 960 System (MGIT) and the BacT/ALERT MB System (MB) for detection of mycobacteria. The study evaluated time to detection, mycobacterial recovery rates (sensitivity) and contamination rates.

In this controlled study, 376 non-sterile specimens and 246 sterile specimens were processed and tested in parallel by MGIT, MB and Lowenstein-Jensen culture. In addition, a seeded study was performed using a standardized, dilution series of *Mycobacterium tuberculosis* (H37Rv).

Highlights of this study are as follows:

- Time to detection (TTD) for all mycobacterial species was considerably shorter using MGIT (average 7.3 days) versus MB (average 16.9 days).
- The average TTD for *M. tuberculosis* was 13.5 days for MGIT versus 25.0 days for MB – a difference that was statistically significant (P = 0.006).
- TTD in the seeded study was lower for MGIT than for MB for each concentration tested – see Table 1.
- The sensitivity for all mycobacteria was 85% (39/41) and 65% (31/41) for MGIT and MB, respectively.
- The sensitivity for *M. tuberculosis* was 100% (9/9) and 66.6% (6/9) for MGIT and MB, respectively.
- MGIT was 100% sensitive for *M. fortuitum* (5/5), whereas MB failed to detect this mycobacterial species (0/5).
- Both systems detected 19 out of 20 *M. avium* complex strains and all *M. parascrofulaceum* (1/1), *M. abscessus* (3/3), and *M. kansasii* (1/1) strains.
- Both systems missed one strain of *M. mucogenicum* (0/1).
- The contamination rate for the 376 digested specimens was lower in MGIT (10.3%) versus MB (17.2%).

The authors concluded that the BACTEC MGIT 960 System is superior to the BacT/ALERT MB System. They also concluded it is still necessary to use standard, solid-based culture methods in conjunction with automated systems to ensure recovery of all mycobacterial species.

To obtain information on the BD BACTEC MGIT 960 System or to obtain a copy of this paper, mark the appropriate box(es) on the reader response card.

Table 1. TTD for MGIT and MB using bottles seeded with known concentrations of MTB

MTB (CFU/mL)*	TTD (Days)	
	MGIT 960	BacT/ALERT MB
1 x 10^4	6.50	8.25
1 x 10^3	7.90	10.25
1 x 10^2	9.70	12.20
1 x 10^1	10.85	13.30

*Verified using traditional plate counts on Middlebrook 7H11 Agar.

Product Highlights

Study Confirms –

BBL™ CHROMagar™ O157 has Improved Diagnostic Performance Compared to SMAC for Detecting E. coli *O157:H7*

BBL CHROMagar O157 is the only FDA-cleared chromogenic medium for *E. coli* O157:H7 on the market today!

A study performed by Church et al.[1] at Calgary Laboratory Services, Calgary, Alberta, Canada, and recently published in the *Journal of Clinical Microbiology* determined that BBL CHROMagar O157 was more sensitive and had better diagnostic efficiency than Sorbitol-MacConkey Medium (SMAC) for detecting *Escherichia coli* O157 in stool specimens.

Calgary Laboratory Services is a large integrated medical laboratory company that provides clinical services to one of the largest integrated healthcare regions in Canada. This region has a high prevalence of infection with enteric bacteria, because southern Alberta is a major agricultural area. For this study, stool specimens were cultured on SMAC and CHROMagar O157, incubated aerobically for 18-24 hours at 35°C and read by independent technologists. On average, 10 non-sorbitol-fermenting colonies from SMAC and all mauve colonies from CHROMagar O157 plates were further evaluated biochemically and serologically to confirm identification as *E. coli* O157. Economic comparisons were made for each medium and included labor costs (tech time) and material costs (media and reagents).

Based on 3,116 stool cultures of which 27 were positive, the authors reported the following results (CHROMagar O157 compared to SMAC): sensitivity = 96.3% (26/27); specificity = 99.96% (3,089/3,090); positive predictive value = 100% (27/27); and negative predictive value = 100% (3,089/3,089). CHROMagar O157 missed one *E. coli* O157 infection, however, SMAC missed four.

From an economic standpoint, CHROMagar O157 decreased labor and material costs by 21% and 64%, respectively, during the study. These savings were due to the medium's high specificity; i.e., fewer biochemical and serological tests were necessary on CHROMagar O157 colonies as compared to SMAC colonies. Projecting these savings on an annual basis, CHROMagar O157 is expected to reduce materials costs by ~$11,000 and save the equivalent of one full-time employee in labor.

For more information on BBL CHROMagar O157 or to obtain a copy of this study, mark the appropriate box(es) on the reader response card.

[1]Church, D.L. et al. 2007. Evaluation of BBL CHROMagar O157 versus Sorbitol-MacConkey medium for routine detection of *Escherichia coli* O157 in a centralized regional clinical microbiology laboratory. J. Clin. Microbiol. *45*:3098-3100.

NOTE: This study was funded by a grant from BD Diagnostics.

Product Highlights

BBL™ CHROMagar™ MRSA

Flexibility That Fits Your Workflow

In the war on methicillin-resistant *Staphylococcus aureus* (MRSA), BBL CHROMagar MRSA gives you fast results and flexibility that fits your workflow. CHROMagar MRSA provides improved performance and more flexibility in the direct detection of nasal colonization by MRSA compared to other culture methods.

Advantages of BBL CHROMagar MRSA are:

- Plate when you want, **read** when you want – the 8-hour read window easily fits into your laboratory workflow
- Positive results in as little as 20 hours
- Lean microbiology – reduces labor and reagent costs
- 96% agreement compared to PCR

Recently, we sent a mailer to all *LabO*™ customers on file about an opportunity to obtain 20 free BBL CHROMagar MRSA plates. If you did not receive this mailer, be sure to contact your local BD sales representative to take advantage of this limited-time offer.

For more information on BBL CHROMagar MRSA, mark the appropriate box on the reader response card.

Cat. No.	Description	Qty/ Pkg
215084	BBL™ CHROMagar™ MRSA	20
215181	BBL™ CHROMagar™ MRSA	100

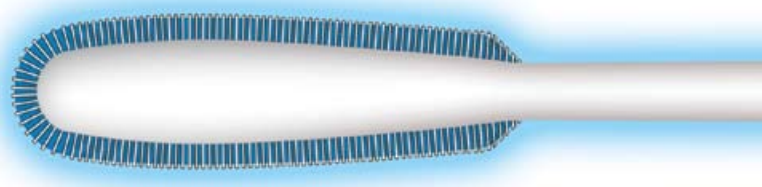
BD Announces Distribution of Flocked Swabs

We are pleased to announce the availability of Flocked Swabs manufactured by Copan Diagnostics. This next generation of sample collection devices is manufactured by utilizing exclusive spray-on nylon flocked fiber technology, which facilitates a strong capillary power between the fibers to improve absorbance. The soft velvet brush-like texture allows for the collection of maximum target analyte.

These swabs help dislodge, collect and transfer solid and semi-solid materials. Unlike traditional polyester or rayon woven swabs, flocked swabs have no inside to entrap the sample. The sample stays close to the surface allowing for easier elution into liquid or onto solid media.

For more information on Flocked Swabs, contact your local BD sales representative.

Cat. No.	Description	Qty/Pkg
220250	Regular Flocked Swab	100
220251	Minitip Flocked Swab	100
220252	Flexible Minitip Flocked Swab	100



Product Highlights

Non-Mercury Thermometer Introduced for Use with the BD ProbeTec™ and BD Viper™ Systems

A new digital thermometer is now available as a replacement for the current mercury glass thermometers used with the BD ProbeTec and the BD Viper instrumented systems. With the introduction of this new product, BD continues its commitment to enhancing product safety and to protecting the environment. Benefits include:

- Digitized temperature display versus mercury level readings
- Elimination of potentially hazardous glass/mercury thermometers
- Single digital thermometer monitors multiple components

The new digital thermometer will replace both the Priming/Warming Heater Thermometer (cat. no. 440481) and the Lysing Heater Thermometer (cat. no. 440485). Thus, one digital thermometer can be used to replace the three mercury thermometers currently required for the BD ProbeTec ET System and the one mercury thermometer currently required for the BD Viper System. Immediate replacement of your current thermometer is not required; however, BD will discontinue the sale of the mercury thermometers within the next four months.

To place an order for the new digital thermometer, call BD Customer Service at 800.675.0908.

Cat. No.	Description	Qty/ Pkg
441305	BD ProbeTec™ ET and BD Viper™ Digital Thermometer	1

New – The BD EpiCenter™ Quick Reference Guide

To enhance your EpiCenter experience, BD Diagnostics Technical Services and Support has created a Quick Reference Guide (QRG) for the BD EpiCenter™ Data Management System.

Like the other Quick Reference Guides provided for BD instrument systems, the BD EpiCenter QRG is a compact, easy-to-use, graphic-rich guide to using the BD EpiCenter System. Tabbed sections offer ready access to icons, field descriptions and operations used with the BD instruments that are interfaced with the EpiCenter System. And for convenience, the QRG is formatted as a freestanding, tabletop flip chart.

Some of the topics covered, according to section, are as follows:

General Navigation

- Optimizing use of the System Message Window
- Specimen association / disassociation activities
- Setting up Favorites
- Running Filters and Reports
- Exporting Reports
- History Reports
- Batch printing and other batch operations
- Resolving conflicts
- Optimizing result suppression
- LIS operations
- Remote service support operations
- Database maintenance

Phoenix™

- Phoenix Panel Lot Configuration
- QC Reports
- Re-running the BDXpert™ System

BACTEC™/MGIT™

- Specimen association / disassociation activities
- Contamination Configuration
- Orphan vial operations
- Generating Plots
- Batch Finalization

Your entire laboratory staff will appreciate the utility of the BD EpiCenter Quick Reference Guide. If you haven't already received your copy, please contact your Application Specialist or call BD Technical Services at 800.638.8663.

Product Highlights

BD Announces CE Marking of the BD GeneOhm™ StaphSR Assay for Wound and Nasal Specimens

BD is pleased to announce that the requirements for CE marking of the BD GeneOhm StaphSR assay for wound and nasal specimens have been met. This test is the first assay for the rapid and simultaneous identification and differentiation of *Staphylococcus aureus* (SA) and methicillin-resistant *Staphylococcus aureus* (MRSA) directly from wound and nasal specimens. This assay had previously been CE marked for use with positive blood cultures. The BD GeneOhm StaphSR assay is intended to enable physicians to rapidly administer the right antimicrobial treatment for patients with wounds infected with SA and MRSA. It will also allow patients colonized with SA or MRSA to be decolonized and receive appropriate prophylactic antibiotics prior to surgery.

"Preoperative screening for nasal carriage of *Staphylococcus aureus* and subsequent treatment of carriers with mupirocin nasal ointment is associated with significant reduction in the postoperative *S. aureus* infection rate by more than 50 percent," said Jan Kluytmans, MD, Consultant Microbiologist, Amphia Hospital Breda at Oosterhout, and Professor of Medical Microbiology and Infection Control, VU University Medical Center, Amsterdam.

In a recent study, MRSA was the most common cause of skin and soft tissue infections (SSTIs) in several metropolitan areas across the U.S., often being reported by patients to be a spider bite.[1] In this study on SSTIs, SA was found to be the causative pathogen in 76 percent of cases, of which 78 percent were MRSA. Although the vast majority of patients with MRSA in the study received empirical antimicrobial therapy, more than half of the time the prescribed agent was not active against MRSA. The BD GeneOhm StaphSR assay will rapidly identify and differentiate SA and MRSA, allowing physicians an opportunity to prescribe earlier appropriate therapy.

In addition, researchers recently reported on the incidence of invasive MRSA infections in the U.S.[2] In 2005, an estimated 94,360 patients acquired an invasive MRSA infection, which resulted in approximately 18,650 deaths.

The BD GeneOhm StaphSR assay is currently under review by the FDA for various specimen types. BD is also developing rapid molecular tests for the detection of two other organisms that cause severe healthcare-associated infections. These tests are being developed to identify the *van*A and *van*B genes associated with vancomycin-resistant enterococci (VRE) and the toxin gene associated with *Clostridium difficile*.

[1]Moran et al. 2006. Methicillin-resistant *S. aureus* infections among patients in the emergency department. N. Eng. J. Med. *355*:666-674.
[2]Klevens et al. 2007. Invasive methicillin-resistant *Staphylococcus aureus* infections in the United States. JAMA *298*:1763-1771.

NEWS FLASH!

The BD GeneOhm StaphSR assay has been cleared by the FDA for testing positive blood cultures. For more information contact your local BD sales representative.

FYI

Now Available –
Two Newly Updated Publications

BBL™ *Quality Control and Product Information Manual*

The new edition of the BBL *Quality Control and Product Information Manual* has been published. Like the current manual, the new manual contains quality control and product information for our most popular plated and tubed media as well as all media exempt from user quality control testing as outlined in the CLSI Approved Standard M22-A3: *Quality Control for Commercially Prepared Microbiological Culture Media*. However, in this edition, rather than formatting the sheets in a continuous fashion, each product information sheet is formatted independently and includes all of the information previously contained in the General Technical Information sections of the current manual. The new format will allow easier implementation of future updates to individual product information sheets.

In addition to the new format, highlights of this edition include:

- Expanded list of media exempt from user QC testing according to CLSI M22-A3.
- The addition of PC Agar (an exempt medium) to the manual.
- Changes in quality control procedures and test organisms made by our Quality Control Laboratory.
- Updated organism names to adopt recent changes in microbial taxonomy.
- Revised text and references, where appropriate, to provide information on current microbiological procedures and identification tables.
- A Table of Contents so that you can verify all product information sheets are present.

All customers on file were sent an announcement and given the opportunity to order their complimentary copy of the manual. If you did not receive this mailing and would like a copy of the manual, visit our web site at www.bd.com/ds/qcpi or call BD Technical Services at 800.638.8663 to order a copy. Alternatively, the entire manual as well as the individual information sheets can be downloaded from our web site: www.bd.com/ds.

BBL™ Sensi-Disc™ Wall Chart

To assist our customers in staying current with the ever-increasing number of antibiotics and other antimicrobial agents, we have updated the BBL™ Sensi-Disc™ Antimicrobial Susceptibility Test Disc Wall Chart.

The wall chart is an alphabetical list of antimicrobial agents by their generic names *and* their trade names. The antimicrobial agents are listed in the first column and the corresponding synonyms for identical compounds are in the adjacent column. Thus, by looking up the generic name of a particular agent, one can ascertain the corresponding trade name(s) and vice versa. In addition, manufacturer information is provided, as well as the antibiotic class, subclass or microbial derivation. In the last two columns, the BBL Sensi-Disc catalog numbers and antibiotic codes are provided and appear in bold type if they are designated for use in the Standardized Susceptibility Disk-Plate Method (Bauer-Kirby).

To receive your copy of the new BD BBL™ Sensi-Disc™ Antimicrobial Susceptibility Test Disc Wall Chart, contact your local BD sales representative today!

Correction

The last issue of *LabO*™ (Vol. 18 No. 3) contained an incorrect catalog number for the BBL™ Aerobic Venting Unit, which are safety devices used to prepare Gram stains and subcultures from BACTEC™ blood culture bottles. The correct number is shown below.

BBL™ Aerobic Venting Unit - Cat. No. 249560

BD H.E.R.O.™ Solutions Workshops

Helping you to improve **H**ealthcare **E**fficiencies, **R**esults and **O**utcomes.

BD is dedicated to providing the most relevant, rapid, high quality solutions for clinical microbiology and infection control through:

- Continuous data generation
- Comprehensive, actionable information
- Reduction of cost and risk
- Increased compliance
- Improved patient and financial outcomes

We invite you to attend one of our informative workshops where you will get hands-on experience with the latest technologies for blood culture, ID/AST and HAI testing. In addition, guest speakers at each event will deliver P.A.C.E.™-accredited presentations on today's most important microbiology topics.

Please visit our website at **www.bd.com/ds/BeTheHero** to reserve your seat and to receive a detailed agenda and speaker portfolio for each workshop.

2008 WORKSHOPS

March 18	**Grandover Resort & Conference Center** *Greensboro, NC*
March 31	**Gaylord Texan Resort & Convention Center** *Grapevine, TX*
April 8	**Holiday Inn** *Girard, OH*
April 29	**Four Points Sheraton** *Schiller Park, IL*
May 13	**The Grand Californian** *Anaheim, CA*
May 20	**The NY Marriott Marquis Hotel** *Manhattan, NY*

Calendar of Events

March 10 - 13
American STD Prevention Conference
Chicago, IL

April 5 - 8
The Society for Healthcare Epidemiology of America
Orlando, FL

May 7 - 10
BASHH-ASTDA 3rd Joint Conference
Brooklyn, NY

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Visit our web site at http://www.bd.com/ds/.