

Exceptional performance

Comprehensive recovery

The facts about dilution versus antimicrobial removal devices (ARDs):

- Thermo Scientific VersaTREK media recovery has demonstrated equivalent recovery to ARDs¹
- ARDs do not work for all antibiotics²
- Timing is an important factor in blood draws, regardless of the media used³
- If a patient is responding to appropriate therapy and the organism is susceptible, the value of subsequent blood cultures is indeterminate
 - "Conflicting data have been published as to whether these products [ARDs] increase microbial recovery."⁴
 - Even if ARDs claim to improve recovery, the additional positive bottles may not influence therapy or affect patient outcome
- Increased contamination has been associated with ARD media.⁵
Impact of contamination results:
 - Longer hospital stays (8 days vs. 12.5 days)
 - Higher total patient charges (\$8731 vs. \$13,116)
 - Higher laboratory charges (\$1426 vs. \$2057)
 - Higher pharmacy charges (\$798 vs. \$1456)
- VersaTREK™ provides a larger dilution ratio than competitive media, allowing dilution of antimicrobials plus serum host factors



Recovery of microorganisms from blood cultures depends on several variables:

- ✓ Timing of the blood draw
- ✓ Dilution ratio
- ✓ Serum host factors
- ✓ Media used
- ✓ Antimicrobial therapy
- ✓ MIC of the organism, which cannot be predicted at time of blood draw
- ✓ Instrument used
- ✓ Volume of blood drawn

While dilution and ARD media (resin, charcoal) work in certain scenarios, ARD media do *not* address all of these variables.

Dilution Ratio of Blood Culture Media⁴

System:	Media Type:	Blood : Broth Ratio:
BacT/ALERT®	FAN (Aerobic, Anaerobic)	1:4
BACTEC™	Plus Aerobic	1:2.5
	Plus Anaerobic	1:2.5
VersaTREK	Aerobic 80mL	1:8
	Anaerobic 80mL	1:8
	EZ Draw 40A	1:8
	EZ Draw 40N	1:8



Dilution provides a simple, proven and cost-effective approach:

- ✓ Dilution of critical serum host factors, improving organism recovery
- ✓ Dilution of antibiotics, further enhancing recovery
- ✓ Reduction of bottle inventory, simplifying phlebotomy
- ✓ Two-bottle media for all patient populations and scenarios
- ✓ Uncompromised nutritional components for excellence in fastidious organism recovery
- ✓ High concentrations of SPS are not required. SPS can be toxic to certain strains of *H. influenzae*, *N. meningitidis*, *N. gonorrhoeae*, *P. anaerobius*, *G. vaginalis* and *Streptobacillus moniliformis*

References:

- ¹Chapin, et. al. 2008, ASM Poster C-177, Boston, MA; Pezzlo, et. al. 1995, ASM Abstract; Welby-Sellenriek, et. al. 1997, JCM, Vol. 35, No. 5; Morello, et. al. 1994, JCM, Vol. 32, No. 3
- ²LaBombardi, et. al. 2009, ASM, Poster C-048, Philadelphia, PA; Bartley, et. al. 1992, ASM, Poster C-083; Pfletz, et. al. 2003, ASM, Poster C-004; Flayhart et. al. 2007, JCM, Vol. 45, No. 3
- ³TREK Technical Insert; BD Technical Insert; bioMerieux Technical Insert
- ⁴Dunne, et. al. 1997, Cumitech 1B, Blood Cultures III
- ⁵McDonald, et. al. 1996, JCM, Vol. 34, No. 9; Weinstein, et. al. 1995, JCM, Vol. 33; Paxton, A. 2000. Nipping Contamination in the blood. CAP Today (online)

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