both species have natural resistance to vancomycin, the clinical significance of separating them is minimal. VITEK 2 is a useful means for the detection of vancomycin resistance in enterococci. However, both identification and susceptibility testing should be performed in order not to miss natural vancomycin resistance and to discriminate between natural and acquired vancomycin resistance.

Table 1.

Organism (no.)	Susceptibilities as determined by Vitek 2					
	Vancomycin			Teicoplanin		
	S	I	R	S	I	R
vanA VRE (12)	0	2	10	1	0	11
vanB VRE (13)	0	1	12	13	0	0
vanA+*vanB* VRE (1)	0	0	1	1	0	0
vanC1 VRE (22)	0	7	15	0	0	0
vanC2 VRE (11)	3	7	1	0	0	0
VSE (24)	24	0	0	24	0	0

S sensitive, I intermediate, R resistant.
VRE vancomycin resistant *Enterocccus*, VSE vancomycin susceptible *Enterococcus*.

P824 Comparison of the impact of direct plating versus a short or overnight pre-enrichment on detection of methicillin-resistant *Staphylococcus aureus* from clinical specimens

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Objectives: Rapid detection of methicillin-resistant *Staphylococcus aureus* (MRSA) from screening cultures is crucial for effective infection control. While an overnight pre-enrichment (On-En) can increase chances of MRSA detection, time to result is 48 hrs. A short, 4-hour pre-enrichment (Short-En) would enable next day results, however its advantage over direct plating (DP) is not known. We compared the impact of DP to plating after Short-En or ON-En on MRSA detection from screening samples.
Methods: Fifty two nasal and groin swabs from 25 patients previously identified as MRSA carriers were collected in BHI + glycerol. 10 µl sample was spiral plated directly on a chromogenic medium, CHROMagar MRSA (BD, Belgium) or on mannitol-salt agar with 4 µg/ml cefoxitin (MSAC), or added to enrichment broth (Tryptone soya broth with 2.5% salt, 20 µg/ml aztreonam, and 3.5 µg/ml cefoxitin). 10 µl of enrichment broth was spiral plated on CHROMagar and on MSAC after a Short-En and ON-En. Colony counts were done for agar cultures after overnight incubation, and putative MRSA colonies confirmed by standard tests. Non-parametric comparisons were made using Friedman's test. Differences in readings (MRSA positive/negative) at the three time-points were modelled using a logistic approach. Generalised estimating equation was used to account for repeated measures over time and the Score test to assess differences between the three time-points.
Results: Of the 52 samples, 9 were negative for MRSA at all three time-points. Plate readings for MRSA positivity after DP or Short-En did not differ significantly (P = 0.317), and showed clear differences after ON-En in comparison to DP or Short-En (P = 0.002 and 0.004, respectively). Two MRSA negative samples gave positive results after ON-En (4% misclassification error). Colony counts differed significantly between DP (mean CFUs/ml: 3.91×10^4, 95% CI: $\pm9.66\times10^2$), Short-En (mean CFUs/ml: 6.79×10^4, 95% CI: $\pm1.22\times10^3$), and ON-En (mean CFUs/ml: 2.31×10^5, 95% CI: $\pm1.16\times10^3$) (Friedman's chi-square = 53.91, degrees of freedom = 2, P = 1.964e-12) (Figure). Of the 52 samples, 60% (n = 30) showed similar colony counts after DP and Short-En, 23% after DP and ON-En, and 31% after Short-En and ON-En.
Conclusions: A Short-En does not offer a significant increase in MRSA detection in comparison to DP and cannot replace an overnight enrichment at least when culture-based methods are used for downstream processing.

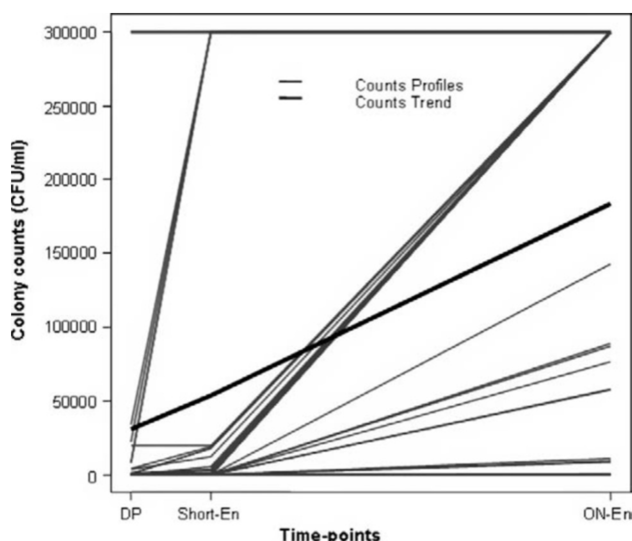

Figure: Colony count profiles and trend after DP, Short-En, and ON-En.

P825 Performance of Oxoid Brilliance MRSA, a new chromogenic medium

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Objectives: To assess the in vitro sensitivity and specificity of Oxoid Brilliance MRSA for the detection of MRSA.
Methods: A collection consisting of 235 methicillin-resistant *Staphylococcus aureus* (MRSA) strains, 284 methicillin-susceptible *Staphylococcus aureus* (MSSA) strains, and 265 coagulase-negative staphylococci (CNS) was used. Identification of strains as *S. aureus* and as being methicillin resistant had been performed by duplex PCR for the mecA gene and the coagulase gene. Strains were selected on the basis of their different phage types. The isolates were inoculated onto agar plates to obtain fresh growth. From the resulting cultures, a suspension with a 0.5 McFarland standard was made, and subsequently, 10 microliter was streaked onto an Oxoid Brilliance MRSA plate. The plates were read after 20 hours of incubation at 35ºC. Growth of colonies showing blue coloration was considered to be positive (indicating MRSA). No growth or colonies with colours other than blue were considered negative. The procedure was performed as recommended by the manufacturer.
Results: Twenty-nine MRSA strains gave discordant results, and a PCR for the mecA gene was performed on these isolates. A total of 28 (97%) of the MRSA strains had a negative result with the mecA PCR. These strains were removed from the analysis, according to the protocol of the study. The results obtained with Oxoid Brilliance MRSA are shown in Table 1. The sensitivity was 99.6% and the specificity was 97.4%.
Conclusion: Oxoid Brilliance MRSA can detect a large number of different MRSA strains and is a sensitive and specific tool for differentiation between CNS/MSSA and MRSA in vitro.

Table 1. Results for Oxoid Brilliance MRSA medium after 20 hours of incubation

Isolate	No. of strains with a positive test result/total no. of strains (%)
MSSA	5/284 (1.8)
CoNS	9/265 (3.4)
Total (CoNS + MSSA)	14/549 (2.6)
MRSA	234/235 (99.6)