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Evaluation of CHROMagar StrepB: a new chromogenic agar medium for aerobic detection of Group B Streptococci in perinatal samples.

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Abstract

A selective and chromogenic medium, the CHROMagar StrepB agar (CHROM-B) designed for aerobic isolation of Group B Streptococci (GBS) in pregnancy-related specimens, was evaluated in a two-Phase study. CHROM-B was evaluated against CPS3 during the first Phase and against Granada afterwards. It was compared to blood agar plates (COH) and to colimycin nalidixic agar plates (CNA) over both Phases. The study which included 1356 samples, yielded 124 GBS. CHROM-B was significantly more sensitive than COH (76.6% vs 53.2% on d1 and 92.7% vs 64.5% on d2; $p<0.001$ for both). CHROM-B yielded positive results sooner than CNA. CPS3 under-performed, partly because of microbiota overgrowth and partly because it did not produce a single and unique colour from the GBS colonies. CHROM-B produced its unique GBS-expected colour sooner than Granada yielding a significantly sooner result for 10% (6/60; $p<0.025$). Every 124 GBS could grow typical colonies on CHROM-B and False Negatives were only due to paucimicrobial samples. Granada failed to produce the expected colour from one non-haemolytic GBS. We conclude that CHROMagar StrepB performed significantly better, irrespective of the haemolytic properties of GBS strains, and significantly sooner than COH, CNA, CPS3 and Granada.

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