Evaluation of "CHROMagar MRSA" (CMRSA) for Detection of Methicillin-Resistant *Staphylococcus aureus* (MRSA).

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Background: CMRSA (CHROMagar Microbiology, France) is a new chromogenic medium for the isolation and identification of MRSA. The composition of the chromogenic and selective mix is proprietary.
Aim: To evaluate the performance of CMRSA in detecting MRSA in a well-defined collection of *S. aureus* (SAU) and coagulase-negative staphylococci (CNS).
Methods: We studied 154 SAU, 80 *mecA*-positive (MRSA) and 74 *mecA*-negative (MSSA); and 100 CNS of 9 species, 54 *mecA*-positive (MRCNS) and 46 *mecA*-negative (MSCNS). PCR of *mecA* gene was used as the reference method. Isolates were streaked on a CMRSA plate and incubated for 24 and 48 hs at 35°C in darkness. Colonies showing mauve or pink color were considered as positive, indicating MRSA. Absence of growing, colorless colonies or growing with a different color to mauve/pink was considered as a negative result (MSSA or CNS).
Results: Sensitivity, specificity, positive (PPV) and negative (NPV) predictive values to detect MRSA at 24 hs from the total sample (SAU + CNS) or SAU alone, are listed in the table.

Sample analyzed	Sensitivity	Specificity	PPV	NPV
Total sample (n:254)	80/80 (100%)	170/174 (97.7%)	80/84 (95.2%)	174/174 (100%)
SAU (n:154)		70/74 (95%)		74/74 (100%)

Specificity to detect MRSA among SAU+CNS or SAU at 48 hs decreased to 94.2, and 86.5%, respectively. Sensitivity remained 100%. MSCNS did not grow on CMRSA plates and MRCNS grew as beige, grey or colorless colonies. None CNS grew as pink or mauve colonies.
Conclusion: CMRSA after 24 hs is a highly sensitive and specific medium to differentiate MRSA from MSSA, MRCNS and MSCNS.