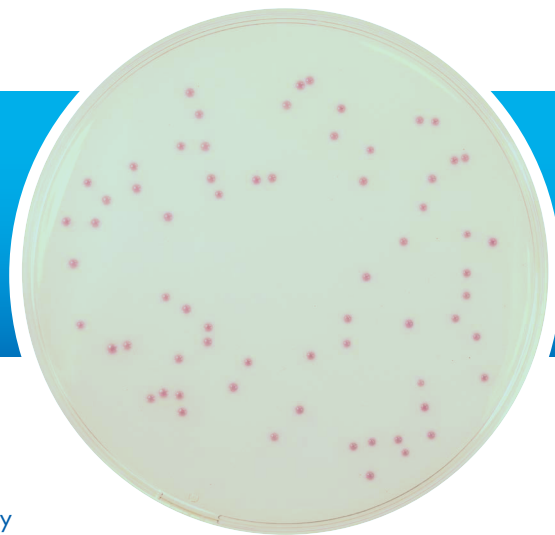


PP3056 / 59 COLOREX™ MRSA



In the mid-1960's, the first cases of MRSA infections were reported and since the 1980's there has been a steady rise in the number of reported cases and the mortality rate. The past few years has also seen the first cases of VRSA, Vancomycin Resistant Staphylococcus aureus. Published figures from the PHE show that, for the period April 2013 - March 2014, there were 924 cases of MRSA bacteraemia in English NHS Trusts, which represented a 6.7% reduction on the previous year. This also represents an 80.6% reduction in cases since 2007/08 when there was a reported 4451 cases.⁽¹⁾

According to EARS-Net, the EU/EEA population-weighted mean MRSA percentage remained at 18%, with a slower rate of decline in MRSA infections compared to the first decade of the 21st century.⁽²⁾ Patient screening has played a part in the observed reduction in MRSA infections and, therefore, a robust screening method remains important.

Chromogenic MRSA screening media started to replace conventional media products, such as Mannitol Salt Agar and Oxacillin Resistance Screening Agar, in 2004 due to continued unreliable results.⁽³⁾ In 2008, Colorex™ MRSA was offered as a solution for the rapid isolation (18 - 24hrs) of MRSA from clinical samples, whilst maintaining high levels of specificity and sensitivity.^(4, 5) This improved version of the Colorex™ MRSA medium was released in 2014.

Colorex™ MRSA is a chromogenic medium for the selective isolation of Methicillin-Resistant Staphylococcus aureus (MRSA). The medium can be used for the routine screening of clinical specimens for MRSA from a variety of sampling sites such as the nose, throat and groin. The medium incorporates a nutritious peptone base medium and a number of selective agents to inhibit most Gram-negative and Gram-positive bacteria as well as yeasts and moulds. The chromogenic detection of specific enzyme activity leads to the formation of pink/mauve colonies indicating MRSA (including low level resistant and hetero-resistant strains) following incubation at 37°C for 18 - 24 hours. Other organisms, if present, are indicated by blue or colourless colonies.

Any presumptive isolates must be confirmed using serological and/or biochemical techniques available to the laboratory. The use of this chromogenic medium does not diminish the requirement for conventional antimicrobial susceptibility tests for the confirmation of methicillin resistance.

MRSA – Mauve/pink colonies

MSSA – Inhibited

Other bacteria – Blue colourless or inhibited

⁽¹⁾ PHE. Annual Epidemiological Commentary: Mandatory MRSA, MSSA and E.coli bacteraemia and C.difficile infection data, 2013/14. 10th July 2014

⁽²⁾ European Centre for Disease Prevention and Control. Antimicrobial resistance surveillance in Europe 2013. Annual Report of the European Antimicrobial Resistance Surveillance Network (EARS-Net). Stockholm: ECDC. 2014.

⁽³⁾ Taguchi H et al. 2004. The Journal of the Japanese Association for Infectious Diseases, 54-58.

⁽⁴⁾ Diederer B, van Duijn I., van Belkum A., van Keulen P., Kluytmans J. 2005. Journal of Clinical Microbiology, 4 : 1925-1927

⁽⁵⁾ Morris K., Wilson C., Wilcox M.H. 2012 Journal of Hospital Infection, 81: 20-24.

Formula	gm/litre	Properties	
Peptone & yeast extracts	40.0	Appearance	Firm Gel
Salts	25.0	Colour	Straw
Agar	15.0	pH	6.9 ± 0.2
Chromogenic mix	2.4	Storage	2 - 8 °C
		Shelf Life	42 Days

Additives

Selective supplement	1.1 ml/l
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Quality Control Test Organisms	Ref. No.	Result
<i>Staphylococcus aureus</i> MRSA	NCTC 10442	Pink / Mauve Colonies
<i>Staphylococcus aureus</i>	NCTC 12981	Inhibited
<i>Staphylococcus epidermidis</i>	NCTC 13360	Inhibited
<i>Pseudomonas aeruginosa</i>	NCTC 12903	Inhibited

Recommended Incubation : Aerobically at 37°C ± 1°C for 18 - 24 hours