

() ()

/

() /

mecA ()

PBP2a ()

DNA kb kb

MSSA MRSA

()

MIC MIC

() MIC

() MRSA

() MRSA

() MRSA

() MRSA ICU

() ()

³ Penicillin Binding Protein
⁴ Mthicillin resistant staphylococcus aureus
⁵ Mthicillin sensitive staphylococcus aureus
⁶ Mnimum inhibitory concentration
⁷ Boston

¹ Ogston
² Intensive care uni

MRSA MSSA

%

MRSA MSSA

() NICU

% / % /

MRSA MRSA

() MRSA

MRSA E-Test

MRSA MRSA

() % :

/ MRSA MRSA

() () (% /) (% /)

() / MRSA () / MRSA

MRSA MSSA

(/) MRSA

(% /) (% /)

%

% MRSA

() ICU

NICU

MRSA

% / MRSA

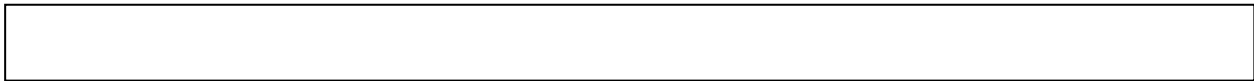
(%) % MRSA ()

() MRSA

() / / MSSA

² levy
³ soa Paulo city
⁴ Brooke Army Hospital

¹ NICU :Neonatal Intensive Care Unit



MRSA

E-) MRSA /

MRSA

(

test

MRSA

% %

MRSA % .()

MRSA

()

MRSA
MRSA

ICU

()

MRSA

)

%

%

(

MSSA

()

ICU

HCW

MRSA

MRSA

² Anterior nares

¹ Chaix

(MRSA)

.()

()

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Introduction : Staphylococcus aureus is a common pathogen in community-acquired and nosocomial infections , and inappropriate use of antibiotics during recent decades resulted in spreading MRSA isolates. According to some studies 60% of its hospital acquired staphylococcal infections were reported to be resistant to methicillin.

The aim of present study was to determine the prevalence of MRSA among clinical isolates in Imam Reza General Hospital of Mashhad.

Material : In present article we performed E-test and disk diffusion methods to determine the prevalence of MRSA among 115 isolates obtained from different units in Imam Reza general hospital of Mashad.

Results : The result show that 69 isolates (60%) were nosocomial and 46 (40%) were community acquired. MRSA was the etiologic agents in 75.4% of nosocomial infections, while most of community acquired infections (93.3%) were sensitive to methicillin .

Almost all of the isolates obtained from burn unit (30 isolates) were MRSA.

All of the isolates were vancomycin sensitive but penicillin resistant by disk diffusion method.

From 33 isolates which were resistant to methicillin by E-test , 9 (27.3%) reported sensitive by oxacillin disk , hence its usefulness for practical means remains doubtful .

Conclusion : If our results would be confirmed by future studies, it seems that MRSA has a very high prevalence in Iran, whose control and eradication demands a very solid and subtle program .

Key words : Staphylococcus aureus , methicillin ,MRSA , microbial resistant , E-test , disk diffusion

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