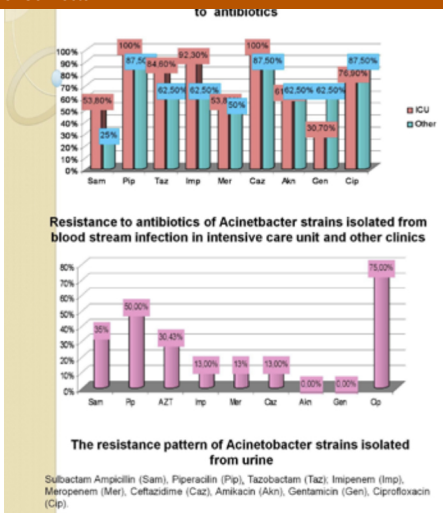

Conclusion: Aminoglycosides, Quinolones and most of $ Lactamins are no more indicated in the therapy of Acinetobacter produced infections.The presence of multiple resistant strains in ICU is attributed to invasive procedures and the use of broad-spectrum antimicrobials. It is rather difficult to distinguish morbidity and mortality attributable to Acinetobacter from that attributable to the common and severe co-morbidity in these patients (ICU). Therefore good clinical evaluation is essential to avoid unnecessary treatment. Infection control measures are crucial for limiting spread and alternative therapies with ampicillin/sulbactam are an option that needs further study.

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74.018

Real time PCR resolution of community acquired MRSA reservoirs: A strategy for the reduction of time to detection of hospital acquired MRSA

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Background: Community acquired methicillin resistant *Staphylococcus aureus* (CA-MRSA) are infiltrating hospitals and becoming the dominant colonising strains. While the optimal MRSA detection strategy remains debatable reliance on conventional microbiological methods causes delay in identifying MRSA carriers culminating in cross infection and dissemination of hospital acquired MRSA infection.

Methods: Nasal swab specimens were subjected to routine culture based and selective chromogenic screening, antibiotic susceptibility testing, as well as molecular detection using standard PCR and SYBR Green real-time PCR assays. MRSA was identified through the amplification of staphylococcal 16S rRNA, *mecA* and PVL genes.

Results: Time to detection was within 5 hours of admission using the real-time method versus 2 days for standard PCR and 4 days for microbiological methods. All hospital acquired MRSA strains carried the *mecA* gene and showed multiple resistance to a panel of antibiotics. The community source of the existing hospital strains was established that HA-MRSA originated through the dissemination of CA-MRSA by cross infection of the carriers. PVL positive multiply resistant MRSA strains were identified from nasal specimens of healthy individuals who had not recently visited hospitals, while healthy MRSA carriers from care home facilities did not contain the PVL gene and these strains demonstrated sensitivity towards most antibiotics.

Conclusion: Thus, MRSA strains with specialised PVL-encoded virulence determinants persist in the hospital environment. This is in contrast to care home facilities where, in the absence of the selective pressure of antibiotics, low level resistance and PVL negative CAMRSA strains are selected, whereas dominance of the more virulent PVL positive MRSA is curtailed. PCR assays, particularly SYBR Green real-time PCR, of *mecA* and PVL genes are preferential procedures in contrast to conventional methods for the rapid detection of CAMRSA as a means of control of cross infection and the dissemination of HA-MRSA.

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74.019

Study of Vancomycin (VA) and Trimethoprim/sulfamethoxazole (TMP-SMX) activity on community-associated Methicillin Resistant *Staphylococcus aureus* (CA-MRSA) biofilms (Bf) in vitro

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Background: Empirical CA-MRSA treatment could be affected by Bf development.There is an increasing appreciation that planktonic microbes account for only a very small proportion of microbial life, the bulk are found in a sessile form in Bf. Therefore, we study the influence of VA and TMP-SMX in early Bf development.

Methods: To better elucidate this, we work with 6 CA-MRSA. We employ the MIC (1.5 mg/l—0.125 mg/l) and sub-MIC (0.5 mg/l-0.06 mg/l) of VA and TMP-SMX respectively. As control we use one HA-MRSA with similar VA MIC and sub-MIC but with 20 mg/l (MIC) and10 mg/l (sub-MIC) to TMP-SMX. Aliquots of overnight cultures in tryticase soy broth were incubated with glass coupons during 3 h for cell attachement. Coupons were transferred to fresh media with and without corresponding antibiotic (AM) concentrations, incubated for 24 h and evaluation previous staining with cristal violet.

Results: Visual observations revealed that CA-MRSA isolates are less effective to form Bf than HA-MRSA. Both AMs (MIC and sub-MIC) didnŤ affect CA-MRSA but affected in different degrees HA-MRSA Bf development. Microscopically CA-MRSA with both AM produced more extracellular polymeric substances (EPS) than CA-MRSA without AM and similar to HAMRSA with or without AM. Microcolonies structures were similar in all glass coupons for all isolates. The results showed that the presence of both AM seems not to affect