Title: The increasing of MRSA isolated from community-acquired urinary tract infections in Kermanshah during 2010-2011

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Abstract: Background and objectives: Staphylococcal species are among the common causes of the urinary tract infections (UTI) in humans. The antibiotic resistance among hospital-acquired isolates has been extensively studied. However, the community-acquired strains can also be highly virulent with increasing antibiotic resistance. Current evidence suggests that many strains of methicillin-resistant staphylococcus aureus (MRSA) have emerged that cause community-acquired infection in patients without previous health-care contact. We aimed to investigate the community-acquired Staphylococcal spp. isolated from urinary tract infections of patients referred to Vejeh Clinic in Kermanshah and characterize their antibiotic resistance patterns.

Material and methods: In this study the antibiotic resistance of 139 isolates of Staphylococcal species from patients (72 women and 67 men) with UTI was assessed. After confirming the bacteria using standard culture methods and biochemical tests, antibiotic susceptibility was carried out by the disc diffusion method using antibiotic discs from PadtanTeb, Iran.

Results: The isolates were S. aureus (26%), S. epidermidis (57%) and S. saprophyticus (17%). S. aureus isolates were resistant to oxacillin (94%), penicillin (95%), erythromycin (62%), clindamycin (16%) and vancomycin (0%). S. epidermidis isolates were resistant to oxacillin (91%), penicillin (95%), erythromycin (55%), clindamycin (19%) and vancomycin (10%). S. saprophyticus isolates were resistant to oxacillin (89%), penicillin (90%), erythromycin (50%), clindamycin (53%) and vancomycin (15%).

Conclusion: The results showed an increase in the prevalence of MRSA among Staphylococcal infections in community-acquired UTI that is alarming for our health system. To confirm whether this increase in the incidence of resistance reflects actual reality, studies using MIC methods are needed.