

## عنوان مقاله:

Prevalence of antibiotic resistance and integrons, sul and Smqnr genes in clinical isolates of *Stenotrophomonas maltophilia* from a tertiary care hospital in Southwest Iran

## محل انتشار:

مجله علوم پایه پزشکی ایران، دوره 22، شماره 8 (سال: 1398)

تعداد صفحات اصل مقاله: 6

## نویسندگان:

Hadi Sedigh Ebrahim-Saraie - *Razi Clinical Research Development Center, Guilan University of Medical Sciences, Rasht, Iran*

Hamid Heidari - *Department of Microbiology, Faculty of Medicine, Shahid Sadoughi University of Medical Sciences, Yazd, Iran*

Behnaz Soltani - *Department of Bacteriology and Virology, School of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran*

Jalal Mardaneh - *Department of Microbiology, School of Medicine, Gonabad University of Medical Sciences, Gonabad, Iran*

## خلاصه مقاله:

**Objective(s):** *Stenotrophomonas maltophilia* has emerged as an important opportunistic nosocomial pathogen due to its intrinsic and acquired resistance to a wide range of antimicrobial agents. The present study aimed to investigate the occurrence of antibiotic resistance and resistance mechanisms among clinical isolates of *S. maltophilia* from Iranian patients. **Materials and Methods:** This cross-sectional study was performed on 44 *S. maltophilia* isolates that were recovered from different clinical specimens in 2015 and 2016. Conventional microbiologic methods were used for primary identification of isolates and confirmed by specific polymerase chain reaction (PCR) primers. Minimum inhibitory concentrations (MICs) were determined by the E-test. PCR was applied to determine antibiotic resistance genes. **Results:** All of *S. maltophilia* isolates were susceptible to trimethoprim/sulfamethoxazole (TMP/SMX) and colistin. Moreover, the susceptibility rates of isolates toward ceftazidime and ciprofloxacin were 93.2%, and 84.1%, respectively. Class 1 integrons was detected in 24 (54.5%) isolates by the presence of *int1* gene. Moreover, the prevalence of antibiotic resistance genes *sul1*, *sul2*, and *Smqnr* were found in 16 (36.4%), 15 (34.1%), and 29 (65.9%) isolates, respectively. **Conclusion:** In summary, the prevalence of *sul* and *Smqnr* genes in integrons-contained isolates point out the significant risk of sulfonamides and fluoroquinolones resistance among clinical isolates of *S. maltophilia* in our region.

## کلمات کلیدی:

Antibiotic resistance, Integrons, *Smqnr* gene, *Stenotrophomonas maltophilia*, *Sul* gene

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/942506>



