

## Detection of Staphylococcus Aureus Enterotoxin Genes A-E

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**Abstract**

**Background and Objective:** The main cause of spreading staphylococcal infections among patients is the healthy carriers working in hospitals. With the secretion of different sorts of toxins such as enterotoxin, this bacteria can provide the conditions for attacking on the host. The main objective of this study is identification of the characteristics and differences in the *Staphylococcus aureus* isolated from healthy carriers and from the patients on the basis of enterotoxin genes (*sea-see*).

**Material and Methods:** One hundred and twenty of the patients and 80 of healthy carriers worked in health centers of Gorgan, north of Iran, were investigated for *S. aureus* isolate. The isolates were evaluated by PCR for Enterotoxin Genes A-E (SEA to SEE).

**Results:** Enterotoxin genes (SEA to SEE) was found in 87.5% of the total isolates and the most frequent one was enterotoxin gene sea (N= 124). The prevalence of these isolates in healthy carriers was significantly higher than those of the patients.

**Conclusion:** Based on the results, the high percentage of *S. aureus* isolated from clinical samples contains enterotoxin genes. Therefore, Human as the source and carrier of *S. aureus* is paramount importance, which is due to significant relationship between being toxigenic strains and the source of isolation.

**Key words:** *Staphylococcus Aureus*; Enterotoxin; Patient; Carrier

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