Isolation and Characterization of *Burkholderia Cepacia* Strains from Hospitalized Patients in the Hospitals of West Guilan Province

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**Abstract**

**Background and Objective:** *Burkholderia cepacia* complex (BCC) is a plant pathogen that is an important mortality factor in immune-compromised and hospitalized patients. We aimed to Isolate and Characterize the *Burkholderia Cepacia* Strains from Hospitalized Patients in the Hospitals of West Guilan Province.

**Material and Methods:** This study was conducted on 90 saliva and blood samples obtained from patients with blood infection, pneumonia, asthma, patients connected to the monitoring and ventilator systems, and immune-compromised patients in different sections of hospitals such as the pediatrics, internal section, ICU and CCU. Primary screening was performed by cultivating the samples on *Burkholderia cepacia* selective agar (BCSA); Sensitivity to antibiotics was tested by Kirby-Bauer and Muller-Hinton Agar (MHA); and the separated isolations were recognized by strengthening the gene rec A.

**Results:** Of 90 isolated samples, only one strain suspected *B. cepacia* was isolated from 24-year old women with asthma. This strain was resistant to bacitracin, pipracillin and ciprofloxacin antibiotics.

**Conclusion:** The incidence of *B. cepacia* is rare in western part of Guilan province, which is congruent with the results of overall incidence in Iran.

**Keywords:** *Burkholderia Cepacia*, Isolation, Characterization, Nosocomial Infection