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**THE ASSESSMENT OF *ACHILLEA WILHELMSII* ESSENCE EFFECTS ON SOME OF  
THE HUMAN BACTERIAL PATHOGENS**

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**ABSTRACT**

Achillea is a medical plant which its essential oil has specific composite metabolites. In this study, the herbal yield of this plant was collected from Jahrom region at the end of May, 2011 during flowering stage. The essential oil was taken by hydro distillation method of Clevenger. Identification of essential oil components was carried out by Gas Chromatography bound to spectrophotometer (CG and GC/Ms). Agar gel diffusion assay and disc diffusion assay methods were used to determine the antibacterial effects of the essential oil. The results of this study showed that the majority of the essential oil components included monoterpenes: camphor (33/32 %), sabinene (2/62 %) and sesquiterpenes: 1,8- cineole (13/58 %), artemisia alcohol (5/34 %), methyleugenol (3/96 %) that caused to create the zone of inhibition (ZOI) against human pathogens (*Proteus mirabilis*, *Staph aureus*, *Enterobacter*, *Serratia marcescens*). The diameter of the zone of inhibition was 4- 20 mm ( $p < 0/05$ ). Based on these results, this plant has antibacterial activity and could be largely used in human diseases treatment as an anti-pathogen.

**Keywords: *Achillea wilhelmsii*, Human Bacterial Pathogens, Essence**