

## **Effect of Temperature on the antibiotic-resistance of *Proteus* spp clinical Isolates**

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**Abstract :** 503 urine samples were collected from patients suffering from urinary tract infections (UTI), chronic otitis media, wounds and burns. 68 isolates of *P.mirabilis* and *P.vulgaris* of 13.5% were used. Depending on their morphological properties and biochemical tests, the distribution of these isolates was 31 UTI samples out of 262, 15 otitis samples out of 79, 9 wound samples out of 77, and 13 burns samples out of 85. 60 isolates (88.2%) were *P. mirabilis* and 8 isolates (11.8%) were *P. vulgaris*. The other species of *Proteus* did not appear in the studied samples. The antibiotic sensitivity of the isolates was tested against twenty-two antibiotics, the most isolates showed high resistance. The imipenem, meropenem, ceftriaxone, cefotaxime, amikacin, gentamicin, and ciprofloxacin were found to be more effective. The minimum inhibitory concentrations of isolates are high. The effect of temperature on *Proteus* spp. antibiotic resistance is studied. The temperature at 43 °C has a good effect in decreasing the bacterial resistance to the antibiotic.

**Keyword:** Bacteria, urinary tract infection, ear, wound and burn Infection, antibiotic sensitivity, temperature.

**B.A. Almayahi *et al*** /International Journal of ChemTech Research, 2016,9(12): 774-781.

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