

# Antibiotic Susceptibility Pattern of Bacterial Isolates from Burn Infection Patients Performed By Vitik-2 Instrument

Mohamed Kamal Amin

Biotechnology Division, Applied Science Department  
University of Technology

## Abstract

A total of 208 microorganisms were isolated from burn wounds of 187 patients at Al-Kindy Training and Research Hospital, Baghdad, Iraq. The results revealed that the most frequent isolate was *Klebsiella pneumoniae* (37.5%), followed by *Pseudomonas aeruginosa* (25%), *Acinetobacter baumannii* (13.46%), *Escherichia coli* (7.2%), *Proteus mirabilis* (5.76%), *Staphylococcus aureus* (3.8%), *Enterobacter aerogenes* (1.9%) and *Burkholderia cepacia* (1.4%). While *Enterobacter cloacae* and *Staphylococcus intermedius* were (0.96 %), respectively. Finally the lowest percentage were (0.48%) for *Aeromonas hydrophiliacaviae*, *Enterococcus faecalis*, *Enterococcus gallinarum* and *Providencia stuartii*, respectively. Multidrug- resistance has emerged as an important concern in our burn unit. Ciprofloxacin and Levofloxacin were found to be the most active drugs against most of isolated bacteria, Tobramycin, Ampicillin/Sulbactam were found to be the most active drugs against *Acinetobacter baumannii*. While, Moxifloxacin and Tigecyclin were active against gram positive bacteria.

## Introduction

Burns are characterized by the loss of varying proportions of the protective layers of the skin, depression of immune responses, and increased wound susceptibility to infection. Wound infection is a major cause of morbidity and mortality in burn cases, the antimicrobial resistance of bacteria isolated from burn patients has increased. Exposure of subcutaneous tissue following loss of skin integrity. It provides moist, warm, nutritive conducive to microbial colonization and proliferation [1].

Wound contaminants may not persist, but species that grow and divide may become established, causing wound colonization or infection. The outcome depends on the interaction of complex host and microbial factors [2]. The wound consisting of moist necrotic tissue represents an ideal culture medium for a wide variety of microorganisms [3] it is now estimated that about 75% of the

