

## Antibacterial Efficiency of Pomelo Peel Extract on Various Concentrations against Selected Microorganisms

Anna Cariza Ayad, Karen Nicole Buerano, Sony Andrew Siregar Sormin, Carmela, Malabat, Susy Jael, Divina Lea, Joanne Lucero

Department of Nursing, Adventist University of the Philippines, Cavite, Philippines

**Abstract:** This study determined the phytochemical components and antibacterial efficiency of *Citrus maxima* (pomelo) peel extract's on two concentrations, 75% and 95%, against selected microorganisms. The phytochemical analysis revealed the presence of alkaloids, flavonoids, glycosides, saponins, sterols, tannins, and triterpenes. Alkaloids were abundantly found while only traces of the other constituents were found. *E.coli* and *P. aeruginosa* both produced 10mm complete inhibition in 75% and 95% extract concentrations. On the other hand, *S. aureus* produced slight inhibitory activity with mean zone of inhibition of 10mm against the 75% extract concentration and *S. aureus* produced partial inhibitory activity with mean zone of inhibition of 10mm against the 95% concentration. In comparison, the antibiotic, Levofloxacin which served as a positive control for *E.coli* and *P. aeruginosa* produced 17.92mm and 16.85mm complete inhibition for the 75% extract concentration. While in the 95% extract concentration, Levofloxacin produced 18.73mm and 18.70mm complete inhibition. For the positive control of the *S. aureus*, a different antibiotic, Clindamycin was utilized and it produced 16.30mm complete inhibition for *S. aureus* in the 75% concentration and it produced 15.02mm complete inhibition for *S. aureus* in the 95% concentration. These results showed that the pomelo peel extract is effective in inhibiting the growth of bacteria and the difference in concentrations had a significant response to the *S. aureus*.

**Keywords:** Phytochemical, antibacterial efficiency, *Citrus maxima* (pomelo) peel extract