



## FORMULATION AND EVALUATION OF HERBAL ANTIBACTERIAL HANDWASH BY USING METHANOLIC EXTRACT OF ACACIA AURICULIFORMIS FRUIT

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### ABSTRACT

A herbal handwash was prepared using extracts of the fruit of *Acacia auriculiformis*, commonly known as auri, earleaf acacia, carpod wattle, northern black wattle, Papuan wattle, and tan wattle, akashmoni in Bengali, is a fast-growing, crooked, gnarly tree in the family Fabaceae. This study aimed to formulate effective herbal handwash using methanolic extract of *Acacia auriculiformis* fruits with emphasis on safety and efficacy and to avoid the risk posed by synthetic antiseptic. Evaluation of antimicrobial activity against microorganism was evaluated by agar plate method. The results showed the presence of various phytoconstituents and possess good antimicrobial activity against *S.aureus* & *E.coli*. So these work support the incorporation and utilization of herbs in the formulation for better effect & can be used by the healthcare professionals on commercial scale.

### INTRODUCTION

Hand hygiene is a vital principle and exercise in the prevention, control, and reduction of healthcare acquired infections. Right hand washing and drying methods stop the chain of transmission of deadly pathogens (from the contaminated surface/site) form hands to other parts of the body. Hand sanitization is the preeminent aid in preventing nosocomial infections caused by different opportunistic microorganisms<sup>1</sup>. Plants are the oldest resource of pharmacologically active compounds and have provided human kind with many medicinally valuable compounds from centuries. Plants are rich in a wide variety of secondary metabolites, such as phenolic compounds, tannins, terpenoids, alkaloids and flavonoids which

have been found to have antimicrobial properties. Hence there is an upsurge of developing herbal disinfectants and evaluate its efficacy<sup>3</sup>. Literature survey of this plant shows that it is reported to possess good antimicrobial properties. The chemical composition of *Acacia auriculiformis* was reported to contain saponins, tannins, carbohydrates, anthocyanidins, flavonoids<sup>4,5</sup>. Plants containing flavonoids and polypeptides used in traditional medicine have been found to be active against wide variety of microorganisms.<sup>6</sup>

The aim of present study was to formulate the herbal handwash by using extract of fruit of *acacia auriculiformis*. Further to evaluate the formulation so

  
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