

## Antibacterial activity of eight medicinal plants against Diarrhoea pathogens.

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### Abstract

*The studies involve the phytochemical screening and antibacterial activity of leaf extracts eight medicinal plants. The selected plants were Timarindus indica, Guiera senegalensis, Prosopis africana, Deterium microcarpum, Citrus aurantifolia, Psidium guajava, Acacia nilotica and Momordica charantia. Methanolics and aqueous leaf extracts revealed the presences of alkaloids, tannins, phenols and flavonoid in high amount in most of the plants. Volatile oil was only detected in C. aurantifolia. Clinical isolates of Salmonella typhi, Pseudomonas aeruginosa, Escherichia coli, Klebsiella pneumoniae, Proteus vulgaris and Citrobaceter sp. were tested for susceptibility to the extracts. The methanolic and aqueous extracts of P. africana exhibited high antibacterial activity with 100% inhibition of all isolates. D. microcarpum showed 100% and 50% activity for aqueous and methanolic extracts respectively while the aqueous extract of G. senegalensis and A. nilotica showed 83.5% inhibition. The MIC and MBC was determined only on the extract that exhibited high activity (10-20mm zones of inhibition) on the tested organisms. The MIC of highly active extract of P. africana and aqueous of G. senegalensis and D. microcarpum were observed to be lower for all isolate (0.156mg/ml - 0.625mg/ml) than the less active extract (2.5mg/ml and 10-40mg/ml). the results obtained in this study shows that P. africana, G. senegalensis, D. microcarpum and T. indica are potentials sources of antimicrobial agents.*

**Keywords:** Antibacterial activity, Medicinal plants, Diarrhoeal patogens, Selected plants, Phytochemical screening.

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