## **ABSTRACT**

## (LITERATURE REVIEW)

## ANTIBACTERIAL ACTIVITY OF VARIOUS PHARMACEUTICAL PREPARATIONS WITH GUAVA LEAVES (Psidium guajava) EXTRACT AS AN ACTIVE INGREDIENT

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In this literature review, a study was conducted on 3 national journals that examined the antibacterial activity of pharmaceutical preparations with the active ingredient of guava leaf extract. Pharmaceutical preparations that will be reviewed based on journals 1, 2, and 3 are toothpaste, hand gel, and mouthwash, respectively. The bacteria that became the object of testing in each journal were *Streptococcus mutans* (journal 1 and 3) and *Escherichia coli* (journal 2).

The antibacterial activity test of the preparations in journal 1 used the well method with the resulting inhibition zone being larger than the blank. Journals 2 and 3 both using the disc diffusion method with various concentrations. Journals 2 and 3 also produced a larger inhibition zone diameter than the control. However, in journal 2 the increase of extract concentration did not result in an increase of the inhibition zone diameter, while in journal 3 there was an increase in inhibition zone diameter along with the increase of the extract concentration. Based on the results of research in the three journals, it can be seen that the addition of guava leaf ethanol extract in pharmaceutical preparations can inhibit the growth of pathogenic bacteria. It was characterized by a larger diameter of the inhibition zone compared to the control that did not contain the extract.

Key words: *Psidium guajava leaves*; antibacterial activity, pharmaceutical preparation