ANGELA RAMDHANI. Diagnosis of Patient with Dengue Fever and Typhoid Fever Using the Algorithm Voting Feature Intervals 5 (VFI5). Supervised by AZIZ KUSTIYO.

Dengue fever and typhoid fever is a disease primarily found in adolescents or adults. The death rate of dengue fever and typhoid fever are still relatively high. The delay in diagnosis is due to the analysis of dengue fever and typhoid fever symptoms being quite difficult. This is due to the similarity of symptoms between dengue fever and typhoid fever. This research will apply the Voting Feature Intervals 5 (VFI5) algorithm to diagnose dengue fever and typhoid fever.

The data used are the result of the common symptoms of dengue fever and typhoid fever patients of a hospital. The data sample consist of patients suffering from dengue fever and typhoid fever comprised of 20 patients with dengue fever and 20 patients with typhoid fever. In this research we use seven symptoms including fever, constipation, nausea, vomiting, muscle aches, abdominal pain, red spots, and dirty tongue. Seven symptoms were then used as features on VFI5 algorithm.

Application of the algorithm VFI5 on patient data was able to provide a sufficiently high prediction results for each iteration. The first iteration, second, third, and fourth produces an accuracy of 100% by using data that has been validated, but the accuracy produced using the new data has an accuracy of 60%. The result of interval training on VFI5 algorithm states that dengue fever and typhoid fever have similar symptoms, making difficult for the layman to distinguish the two diseases without laboratory testing.

Keyword: Dengue Fever, Typhoid Fever, Voting Feature Intervals 5, 4-fold Cross Validation.