

Abstract - The issue of acute kidney failure, particularly caused by the consumption of cough syrup, was circulating around October 2022 and has become a serious public health concern. This issue has drawn extensive attention and sparked various reactions on social media. In this digital era, public opinion expressed in comments on social media platforms like YouTube significantly impacts societal perceptions. Therefore, in the context of the aforementioned issue, sentiment analysis on YouTube video comments can provide valuable insights into societal perceptions and people's reactions. Therefore, this study focuses on the sentiment analysis of public opinions expressed in YouTube comments related to this matter. The methods employed for this analysis include Convolutional Neural Network (CNN) and Long Short-Term Memory (LSTM) with Word2Vec feature extraction. The findings of this study indicate that both these methods produce good performance results with an oversampling dataset with a 90:10 data proportion. In the performance comparison, CNN yielded the highest accuracy, at 0.92, while LSTM was at 0.90.