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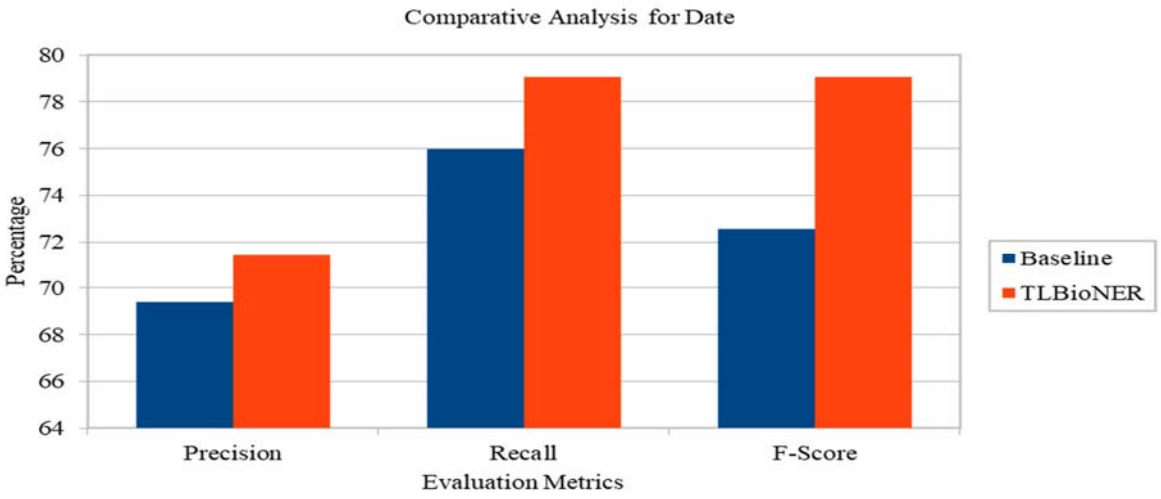

Fig 5. Comparative Analysis of Date Entity

5. Conclusion

Named entity recognition in the medical domain is playing a major role in identifying the important terms in the medical related textual documents. The proposed research work aims to identify the four important entities such as diseases, symptoms, drugs and dosages. NLP play the major role in extracting these entities. The proposed model is tested on the spacy NER. This research work discussed the importance of transfer learning (TL). TL is the process which makes the learning model smoothly with the limited amount of training data. It is observed that the pre-trained model is retrained with the new annotated data and produced better accuracy for the new added entities. The proposed model outperforms well and produced 83.55 percentage of overall F-Score. The data has been extracted from the medical documents which are available in PubMed websites. The proposed model provided significant benefits even with the overlapping annotated entities. As the future enhancements, it is aimed to increase the number entities such route of administration, dosage levels, species, organs, etc. In future, the proposed model can be enhanced and to be used in applications such as dynamic chatbot, question-answering, toxicology report generation, etc.

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