Interoperability Tool Development

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# BACKGROUND AND SIGNIFICANCE

Sometimes it’s convenient to buy some over-the-counter (OTC) for some daily symptoms, like headache or cough. However, the adverse effect or the drug-drug interaction does exist in OTC(https://www.sciencedirect.com/science/article/abs/pii/S1081120612009076). If one has chronic disease and is having medications, then the risk increases. The multiple additives also leads to the risk(<https://www.sciencedirect.com/science/article/abs/pii/0091674984901167>). If there is one app which can directly give you the recommendation on “if having this kind of OTC would have drug-drug effect based on the present medication”, then it would be very clear and helpful for lowering the risk.

# Problem

It’s important to compare the input to the retrieving data, to check if the retrieving data includes the input information (ID, name, additives, etc.) and then give the feedback.

It’s also important to figure out which data we need to retrieve from the database.

# ProPOSED SOLUTION OR IDEA

The app should be able to track the patient’s medication history (the medicine that is taken or took before). Then should be able to retrieve the active ingredient, additives, dosage, etc.

Patients should be able to input the ID number/name with the brand into the app.

Then the app should be able to match the information in a “drug-drug interaction database” and give the feedback to patients, which includes the risk, attenuated effect due to having the medicine at the same time, etc.

Additional function: the patient should be able to leave feedback or record for their usage. For example, if the app says “it’s safe” but there was something happens to the patient, the patient should be able to input the date/drug/reaction, etc.

# Complexity or effort

# Tutorial or demonstration

# References

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