

AN EXPERT SYSTEM
for
HELPING A MEDICAL PRACTITIONER
in the
PRESCRIPTION
of
COMMONLY USED DRUGS

by
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Abstract

Western Medicine is used worldwide for diagnosing diseases and prescribing suitable treatments. Prescribing is done in two ways, namely Symptomatic treatment and Treatment for diagnosis. This is a multi facto task. The specialization and technical sophistication of modern medicine has made it difficult for doctors to keep up with advances in diagnostic and treatment methods. Specialists with this knowledge are rare and expensive, and expert systems are seen as a way of making their expertise available to a wider range of doctors.

Most research work done in this field has been mainly for diagnostic work in some specialized areas. These systems have been used as a tool for the doctors to retrieve information quickly and efficiently and thus saving most of their time spent on manual work.

This project has made an effort to develop an Expert System for helping with prescribing treatments. It can also be used as a tool to retrieve past information of the patients before the diagnosing and prescribing stages. It is seen as been mainly suitable for a General Practitioner.

Two Knowledge Bases have been constructed namely

- . Drug specific Knowledge implemented in a Frame like structure
- . Rule based Knowledge Base which describes many factors used for prescribing

The other major component is A Patient Profile compatible with the structure of the Knowledge Bases, which may be useful for manual

and automated diagnosing / prescribing.

The complete system is implemented using Turbo Prolog on a Personal Computer.

This system has been tested with some case studies to show its suitability and effectiveness. However, it needs to be further improved to be really useful for any type of diseases or symptoms handled by a General Practitioner. At present it focuses on a fairly narrow domain.