BINDURA UNIVERSITY OF SCIENCE EDUCATION

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DEPARTMENT OF COMPUTER SCIENCE

A DEVELOPMENT OF A COMPUTER AIDED PRESCRIPTION SYSTEM: A CASE OF BINDURA HOSPITAL

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Abstract

Errors are an integral part of human life. Execution of medical orders is an important part of healing process and patient care. It is also the main component of nursing performance and has a prominent role in patient safety. Medication errors can significantly affect patient safety and treatment costs and result in hazards for patients and their families. Recent advances in patient safety have been hampered by the hard dealing with the development of a uniform classification of patient safety concepts in a systematic way. Therefore, many believe that medical expert systems have great potential to improve health care. A framework for computer-based medical errors diagnoses of primary systems’ deficiencies is presented. Results of this research assisted in developing the hierarchical structure of the medical errors expert system. The system prompts the user for response with suggested input formats. The system checks the user input for consistency within the given limits. In addition, the system was validated through numerous consultations with the experts in the field. The benefits that are gained from such types of expert systems are eliminating the fear from dealing with personal mistake, and providing the up-date information and helps medical staff as a learning tool. (M Ramadan and K Al-Saleh 2013) The objectives of the study were to design and develop a computer aided prescription system which helps in reduction of medical errors. To test the effectiveness of computerized prescription on the reduction of medical errors. And these objectives were met accordingly. Until now, personal computer software designed for general practitioners has allowed only file management, word processing or drug interaction advice. But no information system permits the user to get other relevant information on drugs or to determine a therapeutic strategy. The researcher has designed an integrated, autonomous and portable system for prescription aid. This system called Cyrotec. This software has been written in PHP and includes a therapeutic knowledge data base which is easy to use. Then, the future of such hand-held systems in medicine is discussed. From the research it is shown that it is probable that this system will have a very wide usage in the next ten years, and that it is complementary with telematic information networks.