A Script for Presentation to the Management of a Teaching Hospital on MYCIN: A Clinical Decision Support System

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Abstract : In recent years, there has been an enormous success in discoveries of scientific knowledge in medicine coupled with the advancement of technology. Despite all these successes, diagnoses and treatment of diseases have become complex. MYCIN is a groundbreaking illustration of a clinical decision support system (CDSS), which was developed to assist physicians in the diagnosis and treatment of bacterial infections by providing suggestions for antibiotic regimens. MYCIN was one of the earliest expert systems to demonstrate how CDSSs may assist human decision-making in complicated areas. Relevant databases were searched using google scholar, PubMed and general Google search, which were peculiar to clinical decision support systems. The articles were then screened for a comprehensive overview of the functionality, consultative style and statistical usage of MYCIN, a clinical decision support system. Inferences drawn from the articles showed some usage of MYCIN for problem-based learning among clinicians and students in some countries. Furthermore, the data demonstrated that MYCIN had completed clinical testing at Stanford University Hospital following years of research. The system (MYCIN) was shown to be extremely accurate and effective in diagnosing and treating bacterial infections, and it demonstrated how CDSSs might enhance clinical decision-making in difficult circumstances. Despite the challenges MYCIN presents, the benefits of its usage to clinicians, students and software developers are enormous.

Keywords : clinical decision support system, MYCIN, diagnosis, bacterial infections, support systems

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