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The Computer and Therapeutic Decision
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The Computer and Therapeutic Decision Making

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To be presented at the Eighteenth Annual Meeting of the Drug Information Association,
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THE COMPUTER AND THERAPEUTIC DECISION MAKING

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To be presented at the
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Kansas City, Missouri
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ABSTRACT

The trend towards increased use of computer-based symbolic reasoning techniques for clinical decision making programs stems from the dual goals of improving the performance and increasing the acceptance of such systems. This talk will summarize the design considerations that have encouraged some recent investigators to turn to artificial intelligence techniques when building consultation systems. Some of the recent experimental consultation systems are less concerned with reaching correct diagnoses than with advising physicians on optimal treatment strategies for patients with known serious diseases. Examples for discussion will be drawn from (1) the MYCIN system, a consultation program to advise physicians on the selection of antimicrobials for patients with bacteremia or meningitis, and (2) ONCOCIN, a recently developed program for advising oncologists on therapy adjustment in the management of patients enrolled in cancer chemotherapy protocols. The dependence of such systems on the judgmental knowledge of experts, as opposed to on formal statistical data, will be stressed in explaining the appeal of symbolic processing techniques when designing therapy advice systems.

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