

## Medical Expert System:Rule Based, Statistical, and Neural Network Models

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**Abstract:**

Expert Systems are intelligent computer systems designed to diagnose problems, suggest solutions, predict outcomes, identify and classify objects, and monitor and control systems. Commonly used methods in building expert systems in medicine are discussed. Rule based systems; statistical models such as regression analysis, discriminant analysis, and Bayes'for-

mula based systems;and neural network model based systems are mentioned. Comparison between neural network model and discriminant function model is made using Child Behavior Checklist scores rated by parents in identifying severely emotionally disturbed children. The non-linear feed forward network is used in the comparison. Both models performed with about the same prediction hit rate.