
This curiously titled book tries to address several important topics in the application of artificial intelligence methods to medical decision making. It succeeds only where it presents a knowledge representation model and derived system that are highly technical, clearly the area of expertise of the authors.

The volume contains three sections. The first, "Cognitive Science to Cognitive Engineering", begins with a general review of computer applications in medicine, mentions classic work in passing, and illustrates the role of uncertainty in medical decision making. This section ends with a description of the authors’ method for knowledge-based system construction, PROforma. The historical review offers weak motivation for the methodology, and on its own does not offer anything new relative to standard current texts and reviews in medical artificial intelligence.

The second section, "A Duty of Care", introduces the topic of safety in systems development. Fox and Das are very interested in the risks of agent technologies, in which expert systems are built that act autonomously (that is, by the use of computerized agents). Several prominent medical systems feature unassisted decision making, something that concerns leaders in the field. The authors describe agents well and develop a conceptually pleasing logical model of a "safety agent" that can be built within a decision-making system to assess the risks of decisions and alert users to the possibility of adverse events.

In the third section, "Rigorously Engineered Decisions", the authors develop their knowledge representation language (RED) and apply it to two examples drawn from the diagnosis of suspected gastric cancer and the management of asthma. RED and its implementation R2L are hybrid rule- and knowledge-based languages that explicitly represent evidence for assertions and use classic logic to form rules. RED seems to descend from the PROLOG family of languages and is well adapted to the creation of expert systems for medicine. It handles time naturally, as descriptors and properties. The concept of safety is explicitly encoded by terms in the language that define risk, the notion of a “safe” action, and actions such as obligation, permission, and review. A well-designed graphical user interface is presented for system implementation. The examples are rudimentary and designed to show the system concepts rather than mastery of a complete problem space.

Safe and Sound is not a book for the casual reader or the beginning student of knowledge-based systems in medicine. System developers and medical computer scientists will find some ideas of interest here, particularly the way the authors address safety in agent systems directly. Further development of the representation language and a comprehensive application will be necessary to broaden the appeal of this text.

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Robbins Review of Pathology consists of >1000 multiple-choice questions, which provide an excellent review of the very broad subject of human disease. This book is best used as a companion to Robbins Pathologic Basis of Disease, the reference textbook on pathology that has been used by medical and other healthcare students for several decades. The book intentionally adheres to the same order of topics as the main text. Thus, the book begins with several chapters on general pathology topics (tissue injury, inflammation, neoplasia, and so forth) followed by the specific diseases of all the organ systems.

The authors wisely format the questions in accordance to the current recommendations of the National Board of Medical Examiners. Specifically, all questions are either single-best-answer multiple-choice items or extended matching questions. Thankfully absent are negative A-type questions (“All of the following are true except...”). Although such questions are relatively easy to write, they are in fact poor questions, in part because they require students to identify each answer choice as either totally true or totally false, an oftentimes impossible task.

The use of clinical vignettes in most of the questions has several advantages. It requires that the student use a substantial body of learned information to successfully answer the question (as opposed to answering the question by simply recalling a single isolated fact). Patient care vignettes emphasize the clinical relevance of the study of pathology, as well as make for more interesting questions.

Every chapter ends with an expanded answer key. For each question, there is a well-written, concise explanation as to why the right answer is correct and why the incorrect choices are not. For those students who wish for more information, each answer includes a reference to the Robbins textbook. (Also referenced is Robbins: Basic Pathology, the “smaller” version of Robbins Pathologic Basis of Disease.)

Because pathology is a visually oriented science, it is welcome to see beautifully reproduced color photographs located throughout this book. The photos, which include diseased organs, histology specimens, and images of patients with various lesions, are well-chosen, classic representations of disease processes. They undoubtedly aid the student in answering the questions.

The most obvious use for this text is to help students in studying for upcoming pathology exams. It is ideally suited to prepare the medical student for the step 1 United States Medical Licensing Exam. However,