

Clinical Information Systems Overcoming Adverse Consequences Jones And Bartlett Series In Biomedical Informatics

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An estimated 1 in 20 patients are admitted to the hospital due to problems with their medication and 1 in 100 hospitalized patients are harmed due to medication errors during their stay. The prescribing of medications is the most common health care intervention and medication safety is relevant to all health care professionals and patients, in all

Healthcare Information Management Systems, 4th edition, is a comprehensive volume addressing the technical, organizational and management issues confronted by healthcare professionals in the selection, implementation and management of healthcare information systems. With contributions from experts in the field, this book focuses on topics such as strategic planning, turning a plan into reality, implementation, patient-centered technologies, privacy, the new culture of patient safety and the future of technologies in progress. With the addition of many new chapters, the 4th Edition is also richly peppered with case studies of implementation. The case studies are evidence that information technology can be implemented efficiently to yield results, yet they do not overlook pitfalls, hurdles, and other challenges that are encountered. Designed for use by physicians, nurses, nursing and medical directors, department heads, CEOs, CFOs, CIOs, COOs, and healthcare informaticians, the book aims to be a indispensable reference.

Americans should be able to count on receiving health care that is safe. To achieve this, a new health care delivery system is needed — a system that both prevents errors from occurring, and learns from them when they do occur. The development of such a system requires a commitment by all stakeholders to a culture of safety and to the development of improved information systems for the delivery of health care. This national health information infrastructure is needed to provide immediate access to complete patient information and decision-support tools for clinicians and their patients. In addition, this infrastructure must capture patient safety information as a by-product of care and use this information to design even safer delivery systems. Health data standards are both a critical and time-sensitive building block of the national health information infrastructure. Building on the Institute of Medicine reports *To Err Is Human* and *Crossing the Quality Chasm*, *Patient Safety* puts forward a road map for the development and adoption of key health care data standards to support both information exchange and the reporting and analysis of patient safety data.

Now in its third edition, this award-winning text work is the only advanced practice nursing text to present effective, systematic, and in-depth evaluations of all aspects of health care quality. Comprehensive in scope, it distills best practice information from numerous sources to facilitate utmost competency for APN and DNP graduates. The third edition keeps pace with the rapidly evolving healthcare market by presenting a more comprehensive range of evaluation strategies for analyzing quality, safety, and value in healthcare practice and programs. It provides a completely new chapter on evaluation of simulation programs to improve clinician competency and patient care technology. An increased focus on the application of quality improvement is woven throughout, including the quality improvement-research continuum and an emphasis on interdisciplinary collaboration and teamwork. New case studies, specific examples from a variety of QI projects, and content specifically geared to improve teamwork also add to the book's outstanding value. The text also delves into the theoretical basis of evaluation and its application as an integral part of contemporary practice. It includes evaluation models that enable nurses to address economic and financial viability, and guides readers through the translation of outcomes from evaluation into health care policy. Additionally, the text now includes PowerPoints for instructors. New to the Third Edition: New chapter: Evaluation of Simulation to Support Ongoing Competency in the HC Workforce Additional case studies and specific examples from QI projects Increased focus on teamwork and collaboration Enhanced discussion of theoretical foundations of evaluation approaches New focus on program evaluation and dissemination of findings Key Features: Addresses AACN competencies and scope of practice Helps students integrate best and evidence-based practices into care Provides guidance on practical methods and tools for Quality Improvement Project Presents evaluation models enabling nurses to address economic and financial viability Includes evaluations of organizations, systems, standards for practice, health care redesign, and the challenges of electronic medical records

Advancements in technology regularly influence the healthcare field and developing aspects on medical patient safety.

Implementing electronic health records, decision support systems, and computerized physician order entry systems reduces risk in the potential for e-health to make errors leading to adverse events. *E-Health Technologies and Improving Patient Safety: Exploring Organizational Factors* presents an overview on information and communication technologies and addresses the impacts on the field of both patient safety and e-health. This book offers insightful perspectives and concentrated research on concepts related to these areas, as well as issues and current trends in patient safety in e-health.

Health Professionals' Education in the Age of Clinical Information Systems, Mobile Computing and Social Networks addresses the challenges posed by information and communication technology to health professionals' education, and the lessons learned from field experiences and research. This book is divided in three parts: "the changing landscape of information and communication technology in health care", in which it discusses how information and communication technology is transforming health care and the implications of these changes for health professions education; "experiences from the field", with real-life examples of health professionals' education in and for the digital era; and "evaluation of students and programs", addressing the use of technology to assess learners as well as the complexity of evaluating programs to enhance competence in an information technology-rich health care world Written by leading researchers from different parts of the world, the book is a valuable source for educators and professionals who are active or wish to be part of the health informatics field. Brings an in-depth understanding and background on

the challenges for education of the health professions brought by information and communication technology Provides real-life examples on how technology is used in healthcare and how it can be used in education Presents valuable information in a visually appealing format with tables and figures

Ideal for allied health and pre-nursing students, Alcamos Fundamentals of Microbiology, Body Systems Edition, retains the engaging, student-friendly style and active learning approach for which award-winning author and educator Jeffrey Pommerville is known. It presents diseases, complete with new content on recent discoveries, in a manner that is directly applicable to students and organized by body system. A captivating art program, learning design format, and numerous case studies draw students into the text and make them eager to learn more about the fascinating world of microbiology.

Updated throughout to reflect the latest discoveries in this fast-paced field, this Sixth Edition, provides an accessible, student-friendly introduction to modern genetics. Designed for the shorter, less comprehensive course, the Sixth Edition presents carefully chosen topics that provide a solid foundation to the basic understanding of gene mutation, expression, and regulation. It goes on to discuss the development and progression of genetics as a field of study within a societal and historical context. The Sixth Edition includes new learning objectives within each chapter which helps students identify what they should know as a result of their studying and highlights the skills they should acquire through various practice problems.

Clinical Information Systems: Overcoming Adverse Consequences Jones & Bartlett Publishers

Part of the JONES AND BARTLETT SERIES IN BIOMEDICAL INFORMATICS As the number of healthcare organizations beginning to implement clinical information systems grows, the number of unanticipated and unintentional consequences inevitably increases as well. While existing research suggests that much good can come from clinicians entering orders directly, errors or other unintended consequences related to technology may arise. Ideal for both clinicians and information technology professionals, Clinical Information Systems: Overcoming Adverse Consequences helps fledgling organizations better prepare for the inevitable challenges and obstacles they will face upon the implementation of such systems. Based on the research and findings from the Provider Order Entry Team from the Oregon Health & Science University, this book discusses the nine categories of unintended adverse consequences that occurred at many of the leading medical centers during their implementation and maintenance of a state-of-the-art clinical information system. It goes on to present the best practices they identified to help organizations overcome these obstacles.

Makes the case for systems thinking in an easily accessible form for a broad interdisciplinary audience, including health system stewards, programme implementers, researchers, evaluators, and funding partners.

First Edition Received 100 Points and 5-Star Doody's Review! This is the only nursing text to facilitate the achievement by Doctor of Nursing Practice graduates (DNPs) of the highest possible competency in conducting systematic and in-depth evaluations of all aspects of health care. The second edition of this award-winning text keeps pace with the rapidly evolving health care market by presenting a more comprehensive range of evaluation strategies for analyzing quality, safety, and value in health care practice and programs, with an emphasis on conducting, interpreting, and disseminating findings. It includes three new chapters addressing evaluation and outcomes, program evaluation, quality improvement, and reporting and disseminating the results.

Based on the best evidence-based practices, the book provides DNPs with in-depth information on the conceptual basis of evaluation, its application as an integral part of contemporary health care delivery, and resources and methodology for evaluation of practice outcomes. It includes a critical examination of the characteristics, sources, and quality of the nature of evidence and presents several different evaluation models including those that focus on economic evaluation. The evaluation of organizations, systems, and standards for practice are covered in detail as are the evaluation of populations and health care teams, particularly interdisciplinary collaborative health teams. Also addressed is the process for translating outcomes from evaluation into health care policy, and opportunities for advocacy and leadership. Numerous examples and case studies illustrate concepts. New to the Second Edition: Includes three (3) new chapters that address evaluation and outcomes, program evaluation, quality improvement, and reporting and disseminating the results Explores health care practice determinates related to quality, safety, and value Covers how to lead and participate in comprehensive health care evaluations using best practices in conduct, interpretation and dissemination Includes strategies for evaluating small, medium, and large programs Key Features: Facilitates competency in conducting systematic and in-depth evaluations of all aspects of health care Based on best practices and evidence based practices Offers practical methods and tools used to conduct and implement a QI project Provides numerous examples and case studies Encourages the dissemination of results using a variety of venues, such as formal presentations, posters, and publications Highly suitable for non-science majors, the fully revised and updated third edition of this bestselling text contains new pedagogical elements and an established learning design format that improves comprehension and retention and makes learning more enjoyable. Unlike other texts in the field, Fundamentals of Microbiology: Body Systems Edition takes a global perspective on microbiology and infectious disease, and supports students in self-evaluation and concept absorption. Furthermore, it includes real-life examples to help students understand the significance of a concept and its application in today's world, whether to their local community or beyond. New information pertinent to nursing and health sciences has been added, while many figures and tables have been updated, revised, and/or reorganized for clarity. Important Notice: The digital edition of this book is missing some of the images or content found in the physical edition.

The book reports on the current state on HCI in biomedicine and health care, focusing on the role of human factors, patient safety well as methodological underpinnings of HCI theories and its application for biomedical informatics. Theories, models and frameworks for human-computer interaction (HCI) have been recognized as key contributors for the design, development and use of computer-based systems. In the clinical domain, key themes that litter the research landscape of health information technology (HIT) are usability, decision support and clinical workflow – all of which are affected directly or indirectly by the nature of HCI. While the implications of HCI principles for the design of HIT are acknowledged, the adoption of the tools and techniques among clinicians, informatics researchers and developers of HIT are limited. There is a general consensus that HIT has not realized its potential as a tool to facilitate clinical decision-making, the coordination of care and improves patient safety. Embracing sound principles of iterative design can yield significant dividends. It can also enhance practitioner's abilities to meet "meaningful use" requirements. The purpose of the book is two-fold: to address key gaps on the applicability of theories, models and evaluation frameworks of HCI and human factors for research in biomedical informatics. It highlights the state of the art, drawing from the current research in HCI. Second, it also serves as a graduate level textbook highlighting key topics in HCI relevant for biomedical informatics, computer science and social science students working in the healthcare domain. For instructional purposes, the book

provides additional information and a set of questions for interactive class discussion for each section. The purpose of these questions is to encourage students to apply the learned concepts to real world healthcare problems.?

This comprehensive book organizes the components of quality and safety outcomes, within a framework developed by expert nurses. Such a framework is missing in existing books on quality and safety in health care, and the concepts of nursing and organizational outcomes are often overlooked. This book fills this gap by exploring and expanding the various features of the Quality Health Outcomes Model (QHOM) and its four main concepts of System, Client, Interventions, and Outcomes. Using a broad and comprehensive approach, the authors identify the most current empirical evidence and concepts in the nursing field to provide an up-to-date understanding of the QHOM's four concepts and their interrelations. New concepts include (a) systems concepts of turbulence and complexity of workflow and use of the electronic health record to support clinical workflow; (b) client concepts of social determinants of health, health literacy, and chronicity; (c) intervention concepts of interprofessional practice, nursing care processes including unfinished care, and care coordination; (d) outcome concepts related to nursing and the organization in addition to patient outcomes that includes the patients' experience. The ideas, approaches, and evidence are provided by a team of experienced researchers, practitioners, and leaders. The author team presents an updated, state-of-art view of how system, client, and interventions affect client, nurse, and organizational outcomes. This book will appeal to researchers, clinicians, and researchers interested in healthcare quality and in particular nurses and nursing students in administration, research, and practice.

In the aftermath of catastrophes, it is common to find prior indicators, missed signals, and dismissed alerts that, had they been recognized and appropriately managed before the event, could have resulted in the undesired event being averted. These indicators are typically called "precursors." *Accident Precursor Analysis and Management: Reducing Technological Risk Through Diligence* documents various industrial and academic approaches to detecting, analyzing, and benefiting from accident precursors and examines public-sector and private-sector roles in the collection and use of precursor information. The book includes the analysis, findings and recommendations of the authoring NAE committee as well as eleven individually authored background papers on the opportunity of precursor analysis and management, risk assessment, risk management, and linking risk assessment and management.

Getting the right diagnosis is a key aspect of health care - it provides an explanation of a patient's health problem and informs subsequent health care decisions. The diagnostic process is a complex, collaborative activity that involves clinical reasoning and information gathering to determine a patient's health problem. According to *Improving Diagnosis in Health Care*, diagnostic errors-inaccurate or delayed diagnoses-persist throughout all settings of care and continue to harm an unacceptable number of patients. It is likely that most people will experience at least one diagnostic error in their lifetime, sometimes with devastating consequences. Diagnostic errors may cause harm to patients by preventing or delaying appropriate treatment, providing unnecessary or harmful treatment, or resulting in psychological or financial repercussions. The committee concluded that improving the diagnostic process is not only possible, but also represents a moral, professional, and public health imperative. *Improving Diagnosis in Health Care* a continuation of the landmark Institute of Medicine reports *To Err Is Human* (2000) and *Crossing the Quality Chasm* (2001) finds that diagnosis-and, in particular, the occurrence of diagnostic errors-€"has been largely unappreciated in efforts to improve the quality and safety of health care. Without a dedicated focus on improving diagnosis, diagnostic errors will likely worsen as the delivery of health care and the diagnostic process continue to increase in complexity. Just as the diagnostic process is a collaborative activity, improving diagnosis will require collaboration and a widespread commitment to change among health care professionals, health care organizations, patients and their families, researchers, and policy makers. The recommendations of *Improving Diagnosis in Health Care* contribute to the growing momentum for change in this crucial area of health care quality and safety.

Molecular Biology is a rapidly advancing field with a constant flow of new information and cutting-edge developments that impact our lives. Lewin's *GENES* has long been the essential resource for providing the teaching community with the most modern presentation to this dynamic area of study. *GENES XI* continues this tradition by introducing the most current data from the field, covering gene structure, sequencing, organization, and expression. It has enlisted a wealth of subject-matter experts, from top institutions, to provide content updates and revisions in their individual areas of study. A reorganized chapter presentation provides a clear, more student-friendly introduction to course material than ever before. - Updated content throughout to keep pace with this fast-paced field. - Reorganized chapter presentation provides a clear, student-friendly introduction to course material. - Expanded coverage describing the connection between replication and the cell cycle is included, and presents eukaryotes as well as prokaryotes. - Available with new online Molecular Biology Animations. - Online access code for the companion website is included with every new book. The companion website offers numerous study aids and learning tools to help students get the most out of their course. - Instructor's supplements include: PowerPoint Image Bank, PowerPoint Lecture Slides, and Test Bank.

Updated to reflect the latest discoveries in the field, the Fifth Edition of Hartl's classic text provides an accessible, student-friendly introduction to contemporary genetics. Designed for the shorter, less comprehensive introductory course, *Essential Genetics: A Genomic Perspective*, Fifth Edition includes carefully chosen topics that provide a solid foundation to the basic understanding of gene mutation, expression, and regulation. New and updated sections on genetic analysis, molecular genetics, probability in genetics, and pathogenicity islands ensure that students are kept up-to-date on current key topics. The text also provides students with a sense of the social and historical context in which genetics has developed. The updated companion web site provides numerous study tools, such as animated flashcards, crosswords, practice quizzes and more! New and expanded end-of-chapter material allows for a mastery of key genetics concepts and is ideal for homework assignments and in-class discussion.

The theme of *Medinfo2007* is "Building Sustainable Health Systems". Particular foci are health challenges for the developing and developed world, the social and political context of healthcare, safe and effective healthcare, and the difficult task of building and maintaining complex health information systems. Sustainable health information systems are those that can meet today's needs without compromising the needs of future generations. To build a global knowledge society, there needs to be an increased cooperation between science and technology and access to high-quality knowledge and information. The papers presented are refereed and from all over the world. They reflect the breadth and depth of the field of biomedical and health informatics, covering topics such as; health information systems, knowledge and data management, education, standards, consumer health and human factors, emerging technologies, sustainability, organizational and economic issues, genomics, and image and signal processing. As this volume carries such a wide collection, it will be of great interest to anyone engaged in biomedical and health informatics

research and application.

This important volume provides a one-stop resource on the SAFER Guides along with the guides themselves and information on their use, development, and evaluation. The Safety Assurance Factors for EHR Resilience (SAFER) guides, developed by the editors of this book, identify recommended practices to optimize the safety and safe use of electronic health records (EHRs). These guides are designed to help organizations self-assess the safety and effectiveness of their EHR implementations, identify specific areas of vulnerability, and change their cultures and practices to mitigate risks. This book provides EHR designers, developers, implementers, users, and policymakers with the requisite historical context, clinical informatics knowledge, and real-world, practical guidance to enable them to utilize the SAFER Guides to proactively assess the safety and effectiveness of their electronic health records EHR implementations. The first five chapters are designed to provide readers with the conceptual knowledge required to understand why and how the guides were developed. The next nine chapters focus on the underlying informatics concepts, key research activities, and methods used to develop each of the guides. Each of these chapters concludes with a copy of the guide itself. The final chapter provides a vision for the future and the work required to ensure that future generations of EHRs are designed, developed, implemented, and used to improve the overall safety of the EHR-enabled healthcare system. Taken together, the information provided in this book should help any organization, whether large or small, implement its EHR program and improve the safety and effectiveness of its existing EHR-enabled healthcare systems. This volume will be extremely valuable to small, ambulatory physician practices and larger outpatient settings as well as for hospitals and professors and instructors charged with teaching safe and effective implementation and use of EHRs. It will also be highly useful for health information technology professionals responsible for maintaining a safe and effective EHR and for clinical and administrative staff working in EHR-enabled healthcare systems.

This book provides an overview of the challenges in electronic health records (EHR) design and implementation along with an introduction to the best practices that have been identified over the past several years. The book examines concerns surrounding EHR use and proposes eight examples of proper EHR use. It discusses the complex strategic planning that accompanies the systemic organizational changes associated with EHR programs and highlights key lessons learned regarding health information—including technology errors and risk management concerns.

Jacket.

Completely revised and updated to incorporate the latest data in the field, Lewin's CELLS, Second Edition is the ideal resource for advanced undergraduate and graduate students entering the world of cell biology. Redesigned to incorporate new learning tools and elements, this edition continues to provide readers with current coverage of the structure, organization, growth, regulation, movements, and interaction of cells, with an emphasis on eukaryotic cells. Under the direction of three expert lead editors, new chapters on metabolism and general molecular biology have been added by subject specialist. All chapters have been carefully edited to maintain consistent use of terminology and to achieve a homogenous level of detail and rigor. A new design incorporates many new pedagogical elements, including Concept & Reasoning Questions, Methods boxes, Clinical Applications boxes, and more.

Every new copy includes access to the student companion website Updated throughout to reflect the latest discoveries in this fast-paced field, *Essential Genetics: A Genomics Perspective, Sixth Edition*, provides an accessible, student-friendly introduction to modern genetics. Designed for the shorter, less comprehensive course, the Sixth Edition presents carefully chosen topics that provide a solid foundation to the basic understanding of gene mutation, expression, and regulation. It goes on to discuss the development and progression of genetics as a field of study within a societal and historical context. The Sixth Edition includes new learning objectives within each chapter which helps students identify what they should know as a result of their studying and highlights the skills they should acquire through various practice problems. What's new in the Sixth Edition? Chapter 1 includes a new section on the origin of life Chapter 2 includes a revised discussion of the complementation test and how it is used to determine whether two mutations have defects in the same gene Chapter 3 incorporates new data showing that the folding of interphase chromatin into chromosome territories has the form of a fractal globule. It also includes a new section on progenitor cells and embryonic stem cells Chapter 4 includes a new section discussing how copy-number variation in human amylase evolved in response to increased dietary starch as well as the latest on hotspots of recombination Chapter 5 is updated with the latest information on hazards of polycarbonate food containers. It also includes a new section on the genetics of schizophrenia and autism spectrum disorder Chapter 6 includes a revised section on restriction mapping and also discusses the newest massively parallel DNA sequencing technologies that can yield the equivalent of 200 human genomes' worth of DNA sequence in a single sequencing run Chapter 7 has been updated with a shortened and streamlined discussion of recombination in bacteriophage Chapter 8 includes new discoveries concerning the mechanisms of intrinsic transcriptional termination as well as rho-dependent termination Chapter 9 is updated with a new section on stochastic effects on gene expression and an expanded discussion of the lactose operon. There is also a revised discussion of galactose gene regulation in yeast, as well as new sections on lon noncoding RNAs Chapter 10 includes new sections on ancient DNA sequences of the Neandertal and Denisovan genomes Chapter 11 examines master control genes in development Chapter 12 includes a new section on the repair of double-stranded breaks in DNA by nonhomologous end joining or template-directed gap repair Chapter 13 has been extensively revised with the latest data on cancer. Chapter 14 includes a new section on the detection of natural selection, as well as a new section on conservation genetics Key Features of *Essential Genetics, Sixth Edition*: New Learning Objectives within each

Mammalogy is the study of mammals from the diverse biological viewpoints of structure, function, evolutionary history, behavior, ecology, classification, and economics. Newly revised and updated, the fifth edition of *Mammalogy* aims to explain and clarify the subject as a unified whole. In recent years we have witnessed significant changes in the taxonomy of mammals. The authors have kept pace with such changes in the field and have revised each chapter to reflect the most current data available. New pedagogical elements, including chapter outlines and further reading sections, help readers grasp key concepts and explore additional content on their own. Two new chapters on domestication and mammal diseases are available on the *Mammalogy* website. Despite sending huge sums of money on health every year the African region's burden of disease is persistently high. Most of the countries in the region are lagging behind in achieving the health-related United Nations Millennium Development Goals. The African region's dismal health situation has largely been blamed on weakness pertaining to such factors as health leadership and governance; service delivery; health workforce; medicines, vaccines, and health technologies; health information; and health system financing that have undermined the capacity of health systems of countries in the region to improve population health without wastage of resources. Institutionalising health system efficiency monitoring, as a basis for the design and implementation of appropriate policy interventions, has been proposed as an effective way of curbing wastage of health system inputs. *Efficiency of Health System Units in Africa: A Data Envelopment Analysis* is the first book of its kind on application of the data envelopment analysis technique to examine the efficiency of health system decision-making units in Africa. The book interlaces lecture notes with research articles and case studies to equip students and practitioners of economics, operations research, management science, and public health with knowledge and skills for undertaking technical efficiency, cost efficiency, and total factor productivity analyses.

Designed specifically for graduate-level nursing informatics courses, this is the first text to focus on using technology with an interprofessional team to improve patient care and safety. It delivers an expansive and innovative approach to devising practical methods of optimizing technology to foster quality of patient care and support population health initiatives. Based on the requirements of the DNP Essential IV Core Competency for Informatics and aligning with federal policy health initiatives, the book describes models of information technology the authors have successfully used in health IT, as well as data and analytics used in business, for-profit industry, and not-for-profit health care association settings, which they have adapted for nursing practice in order to foster optimal patient outcomes. The authors espouse a hybrid approach to teaching with a merged competency and concept-based curriculum. With an emphasis on the benefits of an interprofessional team, the book describes the most effective approaches to health care delivery using health information technology. It describes a nursing informatics model that is comprised of three core domains: point-of-care technology, data management and analytics, and patient safety and quality. The book also includes information on point-of-care applications, population health, data management and integrity, and privacy and security. New and emerging technologies explored include genomics, nanotechnology, artificial intelligence, and data mining. Case studies and critical thinking exercises support the concept-based curriculum and facilitate out-of-the-box thinking. Supplemental materials for instructors include PowerPoint slides and a test bank. While targeted primarily for the nursing arena, the text is also of value in medicine, health information management, occupational therapy, and physical therapy. Key Features: Addresses DNP Essential IV Core Competency for Informatics Focuses specifically on using nursing informatics expertise to improve population health, quality, and safety Advocates an interprofessional team approach to optimizing health IT in all practice settings Stimulates critical thinking skills that can be applied to all aspects of IT health care delivery Discusses newest approaches to interprofessional education for IT health care delivery

This book facilitates the exchange of management theory, best practice, implementation challenges, and the impact of adoption as it pertains to HIT adoption in one or more international settings. It presents a holistic viewpoint on HIT use in health care organizations and systems, and provides a managerial perspective from authors around the world.

"This book presents theoretical and empirical research on the value of information technology in healthcare"--Provided by publisher.

With the increased emphasis on reducing medical errors in an emergency setting, this book will focus on patient safety within the emergency department, where preventable medical errors often occur. The book will provide both an overview of patient safety within health care—the 'culture of safety,' importance of teamwork, organizational change—and specific guidelines on issues such as medication safety, procedural complications, and clinician fatigue, to ensure quality care in the ED. Special sections discuss ED design, medication safety, and awareness of the 'culture of safety.'

Sub-Saharan Africa's turnaround over the past couple of decades has been dramatic. After many years in decline, the continent's economy picked up in the mid-1990s. Along with this macroeconomic growth, people became healthier, many more youngsters attended schools, and the rate of extreme poverty declined from 54 percent in 1990 to 41 percent in 2015. Political and social freedoms expanded, and gender equality advanced. Conflict in the region also subsided, although it still claims thousands of civilian lives in some countries and still drives pressing numbers of displaced persons. Despite Africa's widespread economic and social welfare accomplishments, the region's challenges remain daunting: Economic growth has slowed in recent years. Poverty rates in many countries are the highest in the world. And notably, the number of poor in Africa is rising because of population growth. From a global perspective, the biggest concentration of poverty has shifted from South Asia to Africa. Accelerating Poverty Reduction in Africa explores critical policy entry points to address the demographic, societal, and political drivers of poverty; improve income-earning opportunities both on and off the farm; and better mobilize resources for the poor. It looks beyond macroeconomic stability and growth—critical yet insufficient components of these objectives—to ask what more could be done and where policy makers should focus their attention to speed up poverty reduction. The pro-poor policy agenda advanced in this volume requires not only economic growth where the poor work and live, but also mitigation of the many risks to which African households are exposed. As such, this report takes a "jobs" lens to its task. It focuses squarely on the productivity and livelihoods of the poor and vulnerable—that is, what it will take to increase their earnings. Finally, it presents a road map for financing the poverty and development agenda.

The ninth edition of award-winning author Jeffrey Pommerville's classic text provides nursing and allied health students with a firm foundation in microbiology, with an emphasis on human disease. An educator himself, Dr. Pommerville incorporates accessible, engaging pedagogical elements and student-friendly ancillaries to help students maximize their understanding and retention of key concepts. Ideal for the non-major, the ninth edition includes numerous updates and additions, including the latest disease data and statistics, new material on emerging disease outbreaks, an expanded use of concept maps, and many other pedagogical features. With an inviting "Learning Design" format and Study Smart notes to students, Alcamo's Fundamentals of Microbiology, Ninth Edition ensures student success as they delve into the exciting world of microbiology.

This series is directed to health care professionals who are leading the transformation of health care by using information and knowledge. Launched in 1988 as Computers in Health Care, the series offers a broad range of titles: some addressed to specific professions such as nursing, medicine, and health administration; others to special areas of practice such as trauma and radiology. Still other books in the series focus on interdisciplinary issues, such as the computer-based patient record, electronic health records, and networked health care systems. Renamed Health Informatics in 1998 to reflect the rapid evolution in the discipline now known as health informatics, the series will continue to add titles that contribute to the evolution of the field. In the series, eminent experts, serving as editors or authors, offer their accounts of innovations in health informatics. Increasingly, these accounts go beyond hardware and software to address the role of information in influencing the transformation of healthcare delivery systems around the world. The series also increasingly focuses on "peopleware" and the organizational, behavioral, and societal changes that accompany the diffusion of information technology in health services environments. As new information is introduced and environmental changes occur, Plant Biology continues to develop and evolve as a science. Updated and revised to keep pace with these developments, the Fifth Edition of Botany: An Introduction to Plant Biology provides a modern and comprehensive overview of the fundamentals of botany while retaining the important focus of natural selection, analysis of botanical phenomena, and diversity. Students are first introduced to topics that should be most familiar (plant structure), proceed to those less familiar (plant physiology and development), and conclude with topics that are likely least familiar to the introductory student (genetics, evolution, and ecology). Mauseth is sure to provide the latest material on molecular biology and plant biotechnology in an effort to keep pace with these advancing areas of study. All sections are written to be self-contained allowing for a flexible presentation of course material. Key Features: - Includes new content on molecular biology, plant biotechnology, and the most recent coverage of taxonomy and phylogeny of plants. - Now available with a new electronic laboratory manual. - Plants Do Things Differently boxes help students understand and compare plant biology with human biology. - End-of-chapter study guide includes nearly 50 or more questions in each chapter, urging students to test themselves on the most important points in the chapter. - Alternatives boxes encourage students to think expansively about alternative aspects of plant biology that are more advantageous in certain conditions.

This 5th edition of this essential textbook continues to meet the growing demand of practitioners, researchers, educators, and students for a comprehensive introduction to key topics in biomedical informatics and the underlying scientific issues that sit at the intersection of biomedical science, patient care, public health and information technology (IT). Emphasizing the conceptual basis of the field rather than technical details, it provides the tools for study required for readers to comprehend, assess, and utilize biomedical informatics and health IT. It focuses

on practical examples, a guide to additional literature, chapter summaries and a comprehensive glossary with concise definitions of recurring terms for self-study or classroom use. Biomedical Informatics: Computer Applications in Health Care and Biomedicine reflects the remarkable changes in both computing and health care that continue to occur and the exploding interest in the role that IT must play in care coordination and the melding of genomics with innovations in clinical practice and treatment. New and heavily revised chapters have been introduced on human-computer interaction, mHealth, personal health informatics and precision medicine, while the structure of the other chapters has undergone extensive revisions to reflect the developments in the area. The organization and philosophy remain unchanged, focusing on the science of information and knowledge management, and the role of computers and communications in modern biomedical research, health and health care.

A “must have” text for all healthcare professionals practicing in the digital age of healthcare. Nursing Informatics for the Advanced Practice Nurse, Second Edition, delivers a practical array of tools and information to show how advanced practice nurses can maximize patient safety, quality of care, and cost savings through the use of technology. Since the first edition of this text, health information technology has only expanded. With increased capability and complexity, the current technology landscape presents new challenges and opportunities for interprofessional teams. Nurses, who are already trained to use the analytic process to assess, analyze, and intervene, are in a unique position to use this same process to lead teams in addressing healthcare delivery challenges with data. The only informatics text written specifically for advanced practice nurses, Nursing Informatics for the Advanced Practice Nurse, Second Edition, takes an expansive, open, and innovative approach to thinking about technology. Every chapter is highly practical, filled with case studies and exercises that demonstrate how the content presented relates to the contemporary healthcare environment. Where applicable, concepts are aligned with the six domains within the Quality and Safety Education in Nursing (QSEN) approach and are tied to national goals and initiatives. Featuring chapters written by physicians, epidemiologists, engineers, dietitians, and health services researchers, the format of this text reflects its core principle that it takes a team to fully realize the benefit of technology for patients and healthcare consumers. What’s New Several chapters present new material to support teams’ optimization of electronic health records Updated national standards and initiatives Increased focus and new information on usability, interoperability and workflow redesign throughout, based on latest evidence Explores challenges and solutions of electronic clinical quality measures (eCQMs), a major initiative in healthcare informatics; Medicare and Medicaid Services use eCQMs to judge quality of care, and how dynamics change rapidly in today’s environment Key Features Presents national standards and healthcare initiatives Provides in-depth case studies for better understanding of informatics in practice Addresses the DNP Essentials, including II: Organization and system leadership for quality improvement and systems thinking, IV: Core Competency for Informatics, and Interprofessional Collaboration for Improving Patient and Population health outcomes Includes end-of-chapter exercises and questions for students Instructor’s Guide and PowerPoint slides for instructors Aligned with QSEN graduate-level competencies

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