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Section 1. Fundamental Concepts and Theories

This section serves as the foundation for this exhaustive reference tool by addressing crucial theories essential to the understanding of medical informatics. Chapters found within these pages provide an excellent framework in which to position medical informatics within the field of information science and technology. Individual contributions provide overviews of knowledge management in healthcare, health portals, and health information systems, while also exploring critical stumbling blocks of this field. Within this introductory section, the reader can learn and choose from a compendium of expert research on the elemental theories underscoring the research and application of medical informatics.

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This section addresses conceptual and theoretical issues related to the field of medical informatics, which include maintaining high ethical standards and ensuring that sensitive medical information remains private. Within these chapters, the reader is presented with analysis of the most current and relevant conceptual inquiries within this growing field of study. Particular chapters also address mining biomedical literature, standardization of health and medical informatics, and fuzzy logic in medicine. Overall, contributions within this section ask unique, often theoretical questions related to the study of medical informatics and, more often than not, conclude that solutions are both numerous and contradictory.

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Section 8. Emerging Trends

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