

*Advances in
Human Aspects
of
Healthcare*

Advances in Human Factors and Ergonomics 2014

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Preface

This book is concerned with human factors and ergonomics in healthcare. The utility of this area of research is to aid the design of systems and devices for effective and safe healthcare delivery. New approaches are demonstrated for improving healthcare devices such as portable ultrasound systems. Research findings for improved work design, effective communications and systems support are also included. Healthcare informatics for the public and usability for patient users are considered separately but build on results from usability studies for medical personnel.

Quality and safety are emphasized and medical error is considered for risk factors and information transfer in error reduction. Physical, cognitive and organizational aspects are considered in a more integrated manner so as to facilitate a systems approach to implementation. New approaches to patient handling ergonomics, emergency and operating rooms, healthcare, medical device design, human factors and ergonomics measurement and model validation are included. Recent research on special populations, collaboration and teams, as well as learning and training allow practitioners to gain a great deal of knowledge overall from this book.

Explicitly, the book is organized into nine sections that contain the following subject areas:

- I. Patient Handling Ergonomics
- II. Emergency and Operating Rooms
- III. Patient Treatment Considerations
- IV. Ergonomics and New Services in Healthcare
- V. Medical Device Design
- VI. Work Stressors, Resources and Safety in Telehealth Technology and Healthcare Work
- VII. Healthcare Information Systems
- VIII. Decision Support in Healthcare Environments
- IX. Design for Patient Safety

Each of the chapters of the book were either reviewed by the members of Scientific Advisory and Editorial Board or germinated by them. Our sincere thanks and appreciation goes to the Board members listed below for their contribution to the high scientific standard maintained in developing this book.

- | | |
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This book would be of special value internationally to those researchers and practitioners involved in various aspects of healthcare delivery.

July 2014

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