

Evidence-Based Geriatric Nursing Protocols for Best Practice

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EDITION

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Health care is an ever-changing field. The authors and editors of this book have made extensive efforts to ensure that recommendations and medication regimens are accurate and conform to the standards accepted at the time of publication. However, constant changes in information resulting from continuing research and clinical experience, reasonable differences in opinions among authorities, unique aspects of individual clinical situations, and the possibility of human error in preparing such an extensive text require that the reader exercise individual judgment when making a clinical decision and, if necessary, consult and compare information from other sources, some of which are provided.

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About the Editors

Elizabeth Capezuti, PhD, RN, ARNP-BC, FAAN, is an Associate Professor at New York University College of Nursing. She also serves as Co-director for The Hartford Institute for Geriatric Nursing at New York University, where she directs the Nurses Improving Care for Health System Elders (NICHE) and the Geriatric Nursing Research Scholars programs. Dr. Capezuti received her doctoral degree in nursing from the University of Pennsylvania in 1995 and is a nationally certified Geriatric Nurse Practitioner. She was also on the faculty of the University of Pennsylvania School of Nursing from 1984 through 2000, where she received the 1995 Provost's Award for Distinguished Teaching. From 2000 to 2003, she held the Independence Foundation Wesley Woods Chair in Gerontologic Nursing at Emory University. Dr. Capezuti's program of research focuses on the development and testing of interventions aimed at improving care of frail older adults. Findings from her research have been used to draft both state legislation and federal regulations related to nursing home care. She serves on several national boards and has been a consultant to the Hospital Bed Safety Workgroup of the U.S. Food and Drug Administration and the Center for Medicare and Medicaid Services. Dr. Capezuti has published extensively in the areas of fall prevention, restraint and side-rail elimination, elder mistreatment, and legal liability issues. She is a Fellow of the American Academy of Nursing, the Gerontological Society of America, the American Association of Nurse Practitioners, and the New York Academy of Medicine.

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Mathy Mezey, EdD, RN, FAAN, received her undergraduate and graduate education at Columbia University. She worked as a public health nurse and at Jacobi Hospital in New York City. Dr. Mezey taught at Lehman College of the City University of New York. For 10 years, she was a professor at the University of Pennsylvania School of Nursing, where she directed the geriatric nurse practitioner program and the Robert Wood Johnson Foundation Teaching Nursing Home Program. Since 1991, she has been a professor at New York University College of Nursing. In 1996, Dr. Mezey assumed the position of Director of The Hartford Institute for Geriatric Nursing at NYU.

Dr. Mezey has authored 10 books and has more than 60 publications that focus on the preparation of baccalaureate and advanced practice nurses to care for older adults, nursing practice with older adults, and bioethical issues that affect decisions at the end of life. A Member of the American Academy of Nursing, Dr. Mezey is Editor for the Springer Series in Geriatric Nursing and Co-Editor of the Springer publication, *The Encyclopedia of Elder Care*. Her current research and writing focus on quality of care for older people in hospitals and long-term care.

Dr. Mezey is a Fellow in the American Academy of Nursing and the Gerontological Society of America, sits on the Board of the Visiting Nurse Service of New York, and is Trustee Emeritus, Columbia University.

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Deanna Gray-Miceli, DNSc, APRN, FAANP, is consultant to New York University-Hartford Institute for Geriatric Nursing (HIGN) and Project Director for the HIGN/American Association of Colleges of Nursing-sponsored grant, *Preparing Nursing Students to Care for Older Adults: Enhancing Gerontology in Senior-Level Undergraduate Courses*, *The G-NEC Experience*, and an Adjunct Assistant Professor of Nursing at the University of Pennsylvania School of Nursing. As a nationally certified gerontological nurse practitioner for more than 2 decades, Dr. Gray-Miceli has devoted her clinical and research interests to evaluation and care of older adults who fall. In the mid-1990s, she founded and directed the first academic nurse-managed Fall Assessment and Prevention

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Program in the country, housed at a school of medicine. In 2001, she completed a doctoral degree, focusing her dissertation research on the “Lived experience and meaning of a serious fall to older adults.” In 2002, Dr. Gray-Miceli was awarded a Post-Doctoral Scholarship by The John A. Hartford Building Academic Geriatric Nursing Capacity Program, working with faculty mentors from the School of Nursing and School of Medicine at the University of Pennsylvania. Dr. Gray-Miceli’s program of research includes the development, validation, and feasibility for Registered Nurses to use a post-fall assessment tool for older adults in nursing homes. The tool is capable of detecting reasons for fall events by clinical staff.

For the past 4 years, Dr. Gray-Miceli has been an invited consultant to a state department of health for statewide fall prevention initiatives including development of programs and services for older adults. Several health care provider and professional initiatives directed at fall prevention in clinical practice settings have also been launched. In 2006, she was an invited reviewer to the State and Territorial Injury Prevention Directors Association (STIPDA), Injury Surveillance Workgroup on Falls [ISWF] Report: Consensus Recommendations for Surveillance of Falls and Fall-Related Injuries, and contributed to ECRI’s book “Fall Prevention Strategies in Health Care Settings” and national webinar educational series on fall prevention. Dr. Gray-Miceli has published more than 25 refereed journal articles and 10 book chapters, authored a book titled “Falls Toolkit,” and presented more than 25 papers or posters at national and local scientific meetings mostly related to falls in older adults. She is a Fellow of the American Academy of Nurse Practitioners and the Gerontological Society of America.

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Foreword

In the context of an aging population, use of services by the elderly throughout the health care system continues to grow, particularly among those aged 85 years and older. According to 2004 national survey data, 38% of hospital discharges are people aged 65 years and older (Russo & Elixhauser, 2003). Simultaneously, dramatic advances in prevention, treatment, and control of numerous chronic diseases and related illnesses have led to greatly increased complexity of care for older adults in today's modern health care systems. Consequently, substantial challenges for nursing care have emerged as treatment side effects from medications, surgical procedures, and the hazards of hospitalization conspire to threaten quality of life among older adults during the acute phase of care. A growing base of evidence confirms the pivotal role that bedside nurses play in influencing health trajectories among older adults, particularly in the acute-care setting (Fitzpatrick, Salinas, O'Connor, Callahan & White, 2004; Mezey, Boltz, Esterson, & Mitty, 2005).

Concurrent with the growth in number of frail older adults in health care settings, the scientific basis for care of the elderly has strengthened considerably. New strategies for the synthesis and dissemination of this knowledge base for care have made scientific findings more broadly available to clinicians, administrators, patients, and family members and their advocates, raising expectations for care.

To effectively care for today's older adults, therefore, nurses must integrate knowledge of care for acutely ill patients with the emerging science base of how patterns of chronic, co-morbid conditions affect presentation of illness and how to anticipate and treat geriatric syndromes. Nurses are charged with doing this while eliciting and honoring patient preferences for various care options and being mindful of how family and informal caregivers are involved in care. Meeting this care standard would be a tall order under any circumstances, but it becomes particularly challenging during a time of nursing shortage. Increased utilization of paraprofessional nursing staff, for example, underscores the need for standardized approaches to care that nurses can use with caregivers from diverse educational and cultural backgrounds.

Evidence-Based Geriatric Nursing Protocols for Best Practice, now in its third edition, is a timely addition to the resources nurses and health care organizations need to address the specialized-care needs of older adults throughout the continuum of care. Editors Elizabeth Capezuti, DeAnne Zwicker, Mathy Mezey, and Terry Fulmer have engaged some of the top clinician-scientists in the country to frame, acquire, appraise, and synthesize the best evidence for care of the most prevalent clinical problems and syndromes faced by older adults when

they are ill. Expanding on prior success with earlier editions of this book and with the innovative geriatric nursing care portal, www.ConsultGeriRN.org, this edition offers updated and refined sections on previously featured topics such as advance directives. A key refinement to the protocols is making an explicit link between the guideline recommendations and the supporting evidence. Several new protocols critically needed for effective nursing care of the elderly, such as protocols for dehydration prevention, recognition, and treatment, have been added. Each section includes a model case study to demonstrate application of the evidence and protocol.

The update and expansion of these protocols have important implications for nurses at every level of practice. Bedside-care nurses now can have ready access to preappraised scientific evidence, accompanied by practical implementation strategies on which to base practice as they confront growing numbers of frail older adults in their care. Members of nursing practice councils, nurse managers, and nurse executives now have an explicit, graded scientific basis for standardizing care practices at the unit level, which should, in turn, assist in forecasting needed staffing and services and development or refinement of systems of care that are “older adult-friendly.” Nursing faculty will find the protocols and evidence summary a useful guide for prioritizing curriculum improvements, and the protocols also serve as a source for identifying gaps in our knowledge base that require new empirical studies. The greatest beneficiaries of these new practice protocols, however, will be the older adults and their family members who stand to benefit from the greater consistency in care and improved outcomes from care based on the best evidence that is tempered with the expertise of advanced clinician–scholars.

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References

- Fitzpatrick, J., Salinas, T. K., O'Connor, L. J., Callahan, B., & White, M. T. (2004). Nursing care quality initiative for hospitalized elders and their families. *Journal of Nursing Care Quality*, *19*(2), 156–161.
- Mezey, M., Boltz, M., Esterson, J., & Mitty, E. (2005). Evolving models of geriatric nursing care. *Geriatric Nursing*, *26*(1), 11–15.
- Russo, C. A., & Elixhauser, A. (2003). *Hospitalizations in the elderly population, 2003*. Statistical Brief #6. May 2006. Rockville, MD: Agency for Healthcare Research and Quality. Retrieved February 5, 2007, from <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb6.pdf>

Preface

As an experienced nursing leader in the hospital arena and with a specialty focus on older persons in our society, I can attest that this third edition holds the promise of bringing yet another level of depth and sophistication to understanding the best practices for assessment, interventions, and anticipated outcomes in our care of older adults.

Health care in our nation, in particular, is becoming increasingly complex. This complexity is also occurring at a time when the number of those older than 65 years of age will soon be the vast majority of our population. Providers of care, both professional and our highly invested public, search daily for the best way to address and manage the multiple levels of care challenges that our older population faces. Third-party payers make decisions about the appropriateness of care seemingly without regard to the efficacy of the treatment modality or interventions but rather based on the short-term cost-effectiveness. Hospital stays are shorter—and rightfully so in light of the higher risk for infection and other complications in our nation’s facilities. The push toward subacute care, intermediate-care units, long-term care, and assisted-living settings makes decision making about care problems even more difficult and imperative. Providers of care increasingly try to sort out the alternatives available for these issues, often without the time required to recall or find the best evidence-based approach. Recognition that quality care is generally also the most cost-effective requires use of the evidence that produces the best outcomes.

The nation’s “baby-boomers” are driving ever higher levels of expectation for the best possible care for their parents, loved ones, and themselves. The Internet is the vehicle for providing access to more information than most of us have the time and capacity to absorb. That this text draws upon the valuable resources of GeroNurseOnline.org is testament to the usefulness of this mode of information. Therefore, it is critical that those of us who are perceived as experts help our fellow professionals and the educated public to find what really is evidenced based.

The dynamic of evidenced-based practice is an ever-changing area of knowledge synthesis and contextual analysis. It is to the editors’ credit that Stetler et al. and the Melnyk & Fineout-Overholt models of evidence ranking were not only selected as the framework for this edition but also that the chapter authors are required to reference the formal Level of Evidence (see chapter 1 on the AGREE rationale) within the text to provide that distinction and reinforcement of the models. Such referencing establishes the current state of the evidence, lends reliability to the recommendations, sets forth potential areas of inquiry for research, and demonstrates contemporary sound practice. Using

evidence-based practice compels the provider to set aside biases, dispel and destroy sacred cows, and exercise critical thinking at every step.

Evidence-Based Geriatric Nursing Protocols for Best Practice is intended to bring the most current evidence-based protocols known to experts in geriatric nursing to the audience of students, both graduate and undergraduate; practitioners at the staff level, from novice to expert; clinicians in specialty roles (i.e., educators, care managers, and advanced practice nurses); and nursing leaders of all levels. The content recognizes that nursing is a cognitive discipline and gives professionals the tools to use. As with any text, the value is in the use and implementation of the protocols to improve the care of older persons. That challenge is clear to those of us in practice, service, and education. We owe a debt of gratitude to the many authors and the editors for bringing this work to us.

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Introduction

Older adults are overwhelmingly the majority of hospitalized patients and are by far the most complicated patients to care for in the acute-care setting. They suffer from multiple complex medical problems, take multiple medications, are the most vulnerable to iatrogenic events, experience prolonged hospital stays, and are more likely to die in the hospital (versus the community or other setting). Acute-care nurses have an enormous responsibility when providing care to older adults in this rapidly changing health care environment with increasing regulatory requirements and short staffing. Even though older persons are our fastest growing segment in the United States, most nursing programs, like medical programs, are just now incorporating geriatrics into the curriculum. Many of those unfamiliar with geriatrics might ask: What's so different about old people? Don't they have the same diagnoses as younger adults, like diabetes, hypertension, and heart disease? The answer to those questions is yes, they do have the same diseases; however, physiological changes that occur with aging, multiple coexisting medical problems, and multiple medications place older adults at significantly higher risk for complications, including death, while hospitalized. The nurse armed with information on the unique ways in which older adults present with subtle signs and symptoms may actually avert complications. Additionally, the nurse equipped with knowledge about and skill in proactive assessment and interventions may actually prevent these complications in the first place.

As in the previous second edition (titled *Geriatric Nursing Protocols for Best Practice* and honored as *American Journal of Nursing Geriatric Book of the Year* in 2003), we present assessment and interventions for common geriatric syndromes. Geriatric syndromes are increasingly recognized as being related to preventable iatrogenic complications, or those that occur as a direct result of medical and nursing care, causing serious adverse outcomes in older patients (see chapter 11, *Iatrogenesis*). We are also very happy to present 13 new topics and several new expert contributors in this edition. Many of these topics have been updated from the protocols that appear on the Web site of The Hartford Institute for Geriatric Nursing at NYU (www.ConsultGeriRN.org). The new topics in this edition are as follows:

- Dementia
- Nutrition in Aging
- Managing Oral Hydration in Older Adults
- Oral Health Care
- Age-Related Changes in Health
- Sensory Changes

- Iatrogenesis: The Nurse's Role in Preventing Patient Harm
- Family Caregiving for Older Adults
- Comprehensive Assessment and Management of the Critically Ill Older Adult
- Fluid Overload: Identifying and Managing Heart Failure Patients at Risk for Hospital Readmission
- Cancer and the Older Patient: Assessment and Intervention Strategies for the Acute-Care Nurse
- Issues Regarding Sexuality in Older Adults
- Substance Abuse

In this third edition of *Evidence-Based Geriatric Nursing Protocols for Best Practice*, we provide guidelines that are developed by experts on the topics of each chapter and are based on best available evidence. A systematic method, the AGREE Appraisal Process (see AGREE Collaboration, 2001; Levin, in press; Singleton & Levin, in press), was used to evaluate the protocols in the second edition and identify a process to help us improve validity of the book's content. This systematic process, described in chapter 1, was developed to retrieve and evaluate the level of evidence of key references related to specific assessment and management strategies in each chapter. The purpose of determining the best available evidence was to answer the clinical questions posed. The chapter authors rated the levels of evidence based on the work of Stetler et al. (1998) and Melnyk and Fineout-Overholt (2005). Chapter 1, *Developing and Evaluating Clinical Practice Guidelines: A Systematic Approach*, details the process of how the clinical practice guidelines were developed and how they complied with the AGREE items for rigor of development (AGREE Collaboration, 2001). This chapter, written by leaders in the field of evidence-based practice in the United States, will likely be the most important chapter reference for understanding the rating of the levels of evidence. Most of the protocols reflect assessment and intervention strategies for acute care recommended by expert authors who have reviewed the evidence using this process; the evidence provided may come from all levels of care and may not have been specifically tested in the hospital setting.

How to Best Use This Book

The standard nursing approach was used as a guideline for the outline of each topic as deemed appropriate by the chapter author(s) providing overview and background information on the topic, evidence-based assessment and intervention strategies, and a topic-specific case study with discussion. The text of the chapter provides the context and detailed evidence for the protocol; the tabular protocol is not intended to be used in isolation from the text. We recommend that readers consider the following when reading the chapters:

- Review the objectives to ascertain what is to be achieved by reviewing the chapter.
- Review the text noting level of evidence that supports the content, with Level I being the highest (i.e., Systematic Review/Meta-analysis) and

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Level VI the lowest (i.e., Expert opinion) and refer to chapter 1, Figure 1.2, for definitions of Level of Evidence to understand the quantitative evidence that supports each recommendation. Keep in mind that it is virtually impossible to have evidence for all assessments and interventions, which *does not* mean it is not to be used as an intervention. Many interventions that have been successfully used for years have not been quantitatively researched but are well known to be effective to experts in the field of geriatrics.

- Review the protocols and keep in mind that they reflect assessment and intervention strategies for acute care recommended by experts who have reviewed the evidence. This evidence is from all levels of care (e.g., community, primary care, long-term care), not necessarily the hospital setting, and should be applied to the unique needs of individual patients.
- The focus should always be patient-centered, which considers many other factors specific to the individual.
- Review the case study and discussion in each topic, which provides a more real-life, practical manner in which the protocol may be applied in clinical practice.
- Resources in each chapter provide easy access to tools discussed in the chapter and to link readers with organizations that provide ongoing, up-to-date information and resources on the topic.
- An appendix provides additional geriatric-specific resources for readers that can be applied to all topics.

Although this book refers to *Evidence-Based Geriatric Nursing Protocols for Best Practice*, the text may be used by educators for geriatric nursing courses and advance practice nurses and by many others, including interdisciplinary team members, nursing-home and other staff educators, social workers, dietitians, physician assistants, and physicians. Many interventions that are proactively identified by nurses can make a significant difference in improving outcomes, but nurses cannot provide for the complex needs of older adults in isolation. Research has shown that interdisciplinary teams have dramatically improved geriatric patient care and outcomes, as indicated in the Institute of Medicine (IOM) report: communication and collaboration are vital to ensure appropriate exchange of information and care coordination whereas lack of communication is considered a major contributor to iatrogenic complications (IOM, 2001). Caring for older adults as the baby-boomer population continues to “age in” will be an ultimate challenge in health care. Each of us must work together and be committed to provide a culture of safety that vulnerable older adults need in order to receive the safest evidence-based clinical care with optimal outcomes.

We would like to thank the following for their involvement, support, and leadership during the production of this book:

- all of the expert contributors for this third edition
- those nursing experts who participated in the Nurse Competence in Aging project and contributed chapters to GeroNurseOnline, many of which were the impetus for new topics added to this edition
- the institutions that supported faculty and geriatric clinicians participating as contributors of the evidence-based protocols

- those who provided valuable contributions in the first and second editions and their ongoing geriatric research
- faculty and clinicians involved in the project of the American Association of Colleges of Nursing to develop geriatric content for upper-division baccalaureate nursing programs
- Springer Publishing Company for its continuing support of quality geriatric nursing publications
- Nurses Improving Care for Health System Elders (NICHE) Hospitals, which bring many of these protocols to the bedside and serve as leaders in ensuring geriatric nursing best practices (see Dedication and Acknowledgments)

Elizabeth Capezuti
DeAnne Zwicker
Mathy Mezey
Terry Fulmer

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References

- AGREE Collaboration (2001). *Appraisal of guidelines research and evaluation, AGREE instrument*. Retrieved November 21, 2006, from <http://www.agreecollaboration.org/instrument/>
- Institute of Medicine (2001). *Crossing the quality chasm: A new health system for the 21st century*. Washington, DC: National Academy Press.
- Levin, R. (2007). Evidence-based practice: A guide to negotiate the clinical practice guideline maze. *Research and Theory in Nursing Practice, 11*, 5–9.
- Melnycyk, B. M., & Fineout-Overholt, E. (2005). *Evidence-based practice in healthcare*. Philadelphia: Lippincott.
- Singleton, J. K., & Levin, R. F. (In press). Strategies for learning evidence-based practice: Critically appraising clinical practice guidelines. *Journal of Nursing Education*.
- Stetler, C. B., Morsi, D., Rucki, S., Broughton, S., Corrigan, B., Fitzgerald, J., et al. (1998). Utilization-focused integrative reviews in a nursing service. *Applied Nursing Research, 11*, 195–206.

Dedication and Acknowledgments

Evidence-Based Geriatric Nursing Protocols for Best Practice, 3rd Edition, is dedicated to all hospitals participating in the Nurses Improving Care for Health System Elders (NICHE) program for their commitment to providing quality care for older adults. This edition is also dedicated to the Specialty Nursing Associations participating in the Nurse Competence in Aging (NCA) project (affiliated with GeroNurseOnline and The Hartford Institute for Geriatric Nursing) who have added geriatric-specific content to their Web sites. We thank all of you for your recognition and support for improving the outcomes of older adults. Following is a list of the NICHE Hospitals and Specialty Nursing Associations.

NICHE Hospitals

(As of May 2007)

Arizona

Tucson Medical Center, Tucson

California

California Pacific Medical Center, San Francisco
Eisenhower Medical Center, Rancho Mirage
John Muir Medical Center-Walnut Creek Campus
Pomerado Hospital, Poway
Palomar Pomerado Medical Center, Escondido
St. Joseph Hospital, Orange
UCSF Medical Center at Parnassus, San Francisco

Colorado

Boulder Community Hospital, Boulder
North Colorado Medical Center, Greeley

Connecticut

Bridgeport Hospital, Bridgeport
Greenwich Hospital, Greenwich
Hartford Hospital, Hartford
Stamford Hospital, Stamford
Yale-New Haven Hospital, New Haven



Dedication and Acknowledgments

Delaware

Bayhealth Medical Center, Dover
Christiana Care Health System, Wilmington
Christiana Hospital
Wilmington Hospital
Riverside Transitional Care Facility
Christiana Care VNA

Florida

Boca Raton Community Hospital, Boca Raton
Florida Hospital Medical Center, Orlando
Lakeland Regional Medical Center, Lakeland
Morton Plant Hospital, Clearwater
Mease Dunedin Hospital, Clearwater
Sarasota Memorial Hospital, Sarasota

Georgia

Piedmont Hospital, Atlanta

Hawaii

Kaiser Permanente, Honolulu

Idaho

Kootenai Medical Services, Coeur d'Alene

Illinois

Edward Hospital, Naperville
Memorial Medical Center, Springfield
Northwest Community Hospital, Arlington Heights
OSF Saint Anthony Medical Center, Rockford
OSF Saint Francis Medical Center, Peoria
Resurrection Health Care, Saint Joseph Hospital, Chicago
Rush North Shore Medical Center, Skokie
Sarah Bush Lincoln Health Center, Mattoon
Swedish Covenant Hospital, Chicago

Indiana

Schneck Medical Center, Seymour
Wishard Hospital, Indianapolis

Iowa

Mercy Medical Center, Des Moines
Mercy Medical Center, Sioux City
Mercy Medical Center North Iowa, Mason City
Palo Alto County Health Services, Emmetsburg
University of Iowa Hospitals and Clinics, Iowa City

Dedication and Acknowledgments

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Kentucky

University of Kentucky Hospital, Lexington

Louisiana

Ochsner Clinic Foundation, New Orleans

Tenet Health Center, Memorial Medical Center, New Orleans

Maine

Maine Medical Center, Portland

Maryland

Baltimore–Washington Medical Center

Greater Baltimore Medical Center, Glen Burnie

Maryland General Hospital, Baltimore

Massachusetts

Addison Gilbert Hospital, Gloucester

Beth Israel Deaconess Medical Center, Boston

Dana Farber Cancer Institute, Boston

Jewish Geriatric Services, Longmeadow

Massachusetts General Hospital, Boston

Newton Wellesley Hospital, Newton

Spaulding Rehabilitation Hospital, Boston

Tewksbury Hospital, Tewksbury

Michigan

Blodgett Memorial Medical Center

Bronson Methodist Hospital, Kalamazoo

Chelsea Community Hospital, Chelsea

Detroit Receiving Hospital, Detroit

Huron Valley–Sinai Hospital, Detroit

Metro Health Hospital, Grand Rapids

Oakwood Healthcare System, Dearborn

Sinai–Grace Hospital, Detroit

Spectrum Health, Grand Rapids, Grand Rapids

St. John's Hospital and Medical Center, Detroit

Saint Joseph Hospital, Apple Valley

St. Joseph Mercy–Oakland, Pontiac

W. A. Foote Memorial Hospital, Jackson

William Beaumont Hospital, Royal Oak

Minnesota

Allina Unity, Fridley

Fairview University Medical Center, Minneapolis

Mayo Clinic Health System, Rochester

North Memorial Medical Center, Robbinsdale

Nebraska

Nebraska Methodist Hospital, Omaha

Missouri

Saint Joseph Health Center, Kansas City
Phelps County Regional Medical Center, Rolla

New Hampshire

Dartmouth Hitchcock Medical Center, Lebanon
Frisbie Memorial Hospital, Rochester
Saint Joseph Hospital, Nashua

New Jersey

Chilton Memorial Hospital, Pompton Plains
Englewood Hospital and Medical Center, Englewood
Meridian Health System, Jersey Shore Medical Center, Neptune
Meridian Health System, Medical Center of Ocean County, Brick Township
Meridian Health System, Riverview Medical Center, Red Bank
Newark Beth Israel Medical Center, Newark
Raritan Bay Medical Center, Perth Amboy
Robert Wood Johnson University Hospital, New Brunswick
Robert Wood Johnson University Hospital at Rahway
Saint Clare's Health System
Saint Clare's Sussex
Saint Clare's Dover General
Saint Clare's Denville
Saint Clare's Boonton
Franciscan Oaks Continuing Care Retirement Community/Saint Francis
Residential Community, Denville
Saint Joseph's Regional Medical Center, Patterson
Saint Peter's University Hospital, New Brunswick
The Valley Hospital, Ridgewood
Trinitas Hospital, Elizabeth
Union Hospital, Union

New York

Benedictine Hospital, Kingston
Crouse Hospital, Syracuse
Geneva General Hospital (Finger Lakes Health), Geneva
Highland Hospital (Strong Health)/UR School of Nursing, Rochester
The Highlands at Brighton (Strong Health)/UR School of Nursing, Rochester
The Highlands Living Center (Strong Health)/UR School of Nursing
Kaledia Health, Buffalo General Hospital Site, Buffalo
King's County Hospital, New York City
Long Island Jewish (LIJ) Medical Center, New Hyde Park
Memorial Sloan-Kettering Cancer Center, New York City
Mount Sinai Medical Center, New York City
New York Hospital Medical Center of Queens, Flushing

Dedication and Acknowledgments

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New York Presbyterian Hospital–The Allen Pavilion, New York
NYU Downtown Hospital, New York City
NYU Medical Center, Tisch Hospital, New York City
North Shore University Hospital (NSUH) at Forest Hills, Forest Hills
NSUH at Glen Cove, Glen Cove
NSUH LIJ: Huntington Hospital, Huntington
NSUH at Manhasset
Rochester General Hospital, Rochester
Schervier Nursing Care Center, New York City
Soldiers & Sailors Memorial Hospital (Finger Lakes Health), Penn Yan
Strong Memorial Hospital (Strong Health)/UR School of Nursing, Rochester
The Mount Sinai Hospital of Queens
Unity Hospital, Rochester

North Carolina

Duke Health Raleigh Hospital, Durham
Duke University Medical Center, Durham
Forsyth Medical Center, Winston-Salem
Gaston Memorial Hospital, Gastonia
Mission Hospitals, Asheville
Moses Cone Health System, Greensboro
University of North Carolina Hospitals, Chapel Hill
Wake Forest University Baptist Medical Center, Winston-Salem

North Dakota

Saint Alexius Medical Center, Bismarck

Ohio

Akron General Medical Center, Akron, Ohio
Bethesda North Hospital, Cincinnati
Metro Health Medical Center, Cleveland
Premiere Health Partners, Good Samaritan Hospital, Dayton
Premiere Health Partners, Miami Valley Hospital, Dayton
Southwest General Hospital, Middleburg Heights
The Cleveland Clinic Foundation, Cleveland
The Cleveland Clinic Health System, Euclid Hospital, Euclid
University Hospitals Case Medical Center, Cleveland
University Hospitals Geneva Medical Center, Geneva

Oklahoma

Jane Phillips Medical Center, Bartlesville
Oklahoma State University Medical Center, Tulsa
Saint Francis Hospital, Tulsa

Oregon

Legacy Good Samaritan Hospital & Medical Center, Portland
Oregon Health Science University Hospital, Portland
Peace Health, Sacred Heart Medical Center, Eugene



Dedication and Acknowledgments

Providence Milwaukee Hospital, Milwaukee
Providence Portland Medical Center, Portland
Providence St. Vincent Medical Center, Portland
Rogue Valley Medical Center, Medford
Three Community Hospital and Medical Center, Grant Pass

Pennsylvania

Abington Memorial Hospital, Abington
Community Medical Center, Scranton
Crozer Keystone Health System, Crozer Chester, Upland
Crozer Keystone Health System, Delaware County Hospital, Drexel Hill
Crozer Keystone Health System, Springfield Hospital, Springfield
Crozer Keystone Health System, Taylor Hospital, Ridley Park
Moses Taylor Hospital, Scranton
Suburban General Hospital, Pittsburgh

Rhode Island

The Miriam Hospital, Providence
Rhode Island Hospital, Providence
Roger Williams Medical Center, Providence

South Dakota

Sioux Valley Hospital USD Medical Center, Sioux Falls

Tennessee

Blount Memorial Center, Maryville, TN
Baptist Memorial Hospital–Memphis
Covenant Health: Fort Sanders Loudon Medical Center, Loudon
Covenant Health: Fort Sanders Regional Medical Center, Knoxville
Covenant Health: Fort Sanders Regional Parkwest Hospitals, Knoxville
Methodist Extended Care Hospital, Memphis
Vanderbilt Medical Center, Nashville

Texas

Rolling Plains Memorial Hospital, Sweetwater
St. Luke Episcopal Hospital, Houston
The Methodist Hospital, Houston
University of Texas Medical Branch, Galveston
University of Texas Health Center, Tyler

Vermont

Fletcher Allen Health Care, Colchester
Rutland Regional Medical Center, Rutland

Virginia

Bon Secours DePaul Medical Center, Norfolk
Inova Fairfax Hospital, Falls Church
University of Virginia Health System, Charlottesville

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Washington

Overlake Hospital Medical Center, Bellevue
Virginia Mason Medical Center, Seattle

West Virginia

Cabell-Huntington Hospital, Huntington

Wisconsin

Aurora Health Care, St. Luke's South Shore Hospital, Cudahy
Aurora Sinai Medical Center, Milwaukee
Meriter Health Services, Madison
University of Wisconsin Hospital and Clinics, Madison
Waukesha Memorial Hospital, Waukesha
Wheaton Franciscan Healthcare–Elmbrook Memorial Hospital
Wheaton Franciscan Healthcare–Marian Franciscan Center
Wheaton Franciscan Healthcare–St. Francis Hospital
Wheaton Franciscan Healthcare–St. Joseph

CANADA

Calgary District Health Authority

Foothills Medical Centre, Calgary, Alberta
Peter Lougheed Hospital, Calgary, Alberta
Rockyview Hospital, Calgary, Alberta

Cape Breton District Health Authority, Nova Scotia

Cape Breton Regional Hospital
Glace Bay Health Care Facility
New Waterford Consolidated Hospital
Northside General Hospital
Victoria County Memorial Hospital
Sacred Heart Community Health Centre
Inverness Consolidated Memorial
Buchanan Memorial Community Health Centre

New Brunswick

River Valley Health, Fredericton
Saint Joseph's Hospital, St. John
Stan Cassidy Centre for Rehabilitation, Fredericton

Ontario

Mount Sinai Hospital, Toronto

Winnipeg District Health Authority

Deer Lodge Centre
Grace General Hospital
Health Sciences Centre

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Dedication and Acknowledgments

Riverview Health Centre
Seven Oaks General Hospital
St. Boniface General Hospital
Victoria General Hospital

THE NETHERLANDS

University Medical Center at Nymegen

NCA-AFFILIATED SPECIALTY ORGANIZATIONS WITH GERIATRIC CONTENT

(As of May 2007)

Academy of Medical-Surgical Nurses (AMSN) www.medsurgnurse.org
American Holistic Nurses Association (AHNA) www.ahna.org
American Nephrology Nurses' Association (ANNA) www.annanurse.org
American Organization of Nurse Executives (AONE) www.aone.org
American Radiological Nurses Association (ARNA) www.arna.net
Asian American/Pacific Islander Nurses Association (AAPINA) <http://aapina.org>
Association of Nurses in AIDS Care (ANAC) www.anacnet.org
Assoc. of Women's Health, Obstetric, and Neonatal Nurses (AWHONN) www.awhonn.org
Dermatology Nurses' Association (DNA) www.dnanurse.org
Emergency Nurses Association (ENA) www.ena.org
Hospice and Palliative Nurses Association (HPNA) www.hpna.org
National Association of Clinical Nurse Specialists (NACNS) www.nacns.org
National Association of Nurse Massage Therapists (NANMT) www.nanmt.org
National Nursing Staff Development Organization (NNSDO) www.nnsdo.org/
National Student Nurses' Association (NSNA) www.nsna.org
Philippine Nurses Association of America (PNAA) www.philippinenursesaa.org/
Preventive Cardiovascular Nurses Association (PCNA) www.pcna.net
Society of Otorhinolaryngology and Head-Neck Nurses (SOHN)
www.sohnnurse.com

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Developing and Evaluating Clinical Practice Guidelines: A Systematic Approach

1

Rona F. Levin
Joanne K. Singleton
Susan Kaplan Jacobs

Clinical decision making that is grounded in the best available evidence is essential to promote patient safety and quality health care outcomes. With the knowledge base for geriatric nursing rapidly expanding, assessing geriatric clinical practice guidelines for their validity and incorporation of the best available evidence is critical to the safety and outcomes of care. In the second edition of this book, Lucas and Fulmer (2003) challenged geriatric nurses to take the lead in the assessment of geriatric clinical practice guidelines (CPGs), recognizing that in the absence of best evidence, guidelines and protocols have little value for clinical decision making.

The purpose of this chapter is to describe the process that was used to create the third edition of *Evidence-Based Geriatric Nursing Protocols for Best Practice*. In previous editions of this book, each chapter author individually gathered and synthesized evidence on a particular topic and then developed a “Nursing

Standard of Practice Protocol” based on that evidence. There was no standard process or specific criteria for protocol development nor was there any indication of the “level of evidence” of each source cited in the chapter (i.e., the evidence base for the protocol). In this third edition, the process previously used to develop the geriatric nursing protocols has been enhanced. This chapter is a guide to understanding how the geriatric nursing protocols in this third edition were developed and describes how to use the process to guide the assessment and/or development and updating of practice protocols in any area of nursing practice.

Definition of Terms

Evidence-based practice (EBP) is a framework for clinical practice that integrates the best available scientific evidence with the expertise of the clinician and with patients’ preferences and values to make decisions about health care (Levin & Feldman, 2006; Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000). Health care professionals often use the terms *recommendations*, *guidelines*, and *protocols* interchangeably but they are not synonymous.

A recommendation is a suggestion for practice, not necessarily sanctioned by a formal, expert group. A clinical practice guideline is an “official recommendation” or suggested approach to diagnose and manage a broad health condition (e.g., heart failure, smoking cessation, or pain management). A protocol is a more detailed guide for approaching a clinical problem or health condition and is tailored to a specific practice situation. For example, guidelines for falls prevention recommend developing a protocol for toileting elderly, sedated, or confused patients. The specific practices or protocol each agency implements, however, is agency-specific. The validity of any of these practice guides can vary depending on the type and the level of evidence on which they are based. Using standard criteria to develop or refine CPGs or protocols assures reliability of their content. Standardization gives both nurses, who use the guideline/protocol, and patients, who receive care based on the guideline/protocol, assurance that the geriatric content and practice recommendations are based on the best evidence.

In contrast to these practice guides, “standards of practice” are not specific or necessarily evidence-based; rather, they are a generally accepted, formal, published framework for practice. As an example, the American Nurses’ Association document, *Nursing: Scope and Standards of Practice* (2003), contains a standard regarding nurses’ accountability for making of a patient’s health status. The standard is a general statement. A protocol, on the other hand, may specify the assessment tool(s) to use in that assessment—for example, an instrument to predict pressure-ulcer risk.

The AGREE Instrument

The AGREE instrument (*Instrument for Appraisal of Guidelines for Research & Evaluation*, <http://www.agreecollaboration.org/>), created and evaluated by international guideline developers and researchers for use by the National Health

1.1

Rigor of development.

Item 8. Systematic methods were used to search for evidence.

Item 9. The criteria for selecting the evidence are clearly described.

Item 10. The methods used for formulating the recommendations are clearly described.

Item 11. The health benefits, side effects and risks have been considered in formulating the recommendations.

Item 12. There is an explicit link between the recommendations and the supporting evidence.

Item 13. The guideline has been externally reviewed by experts prior to its publication.

Item 14. A procedure for updating the guideline is provided.

AGREE Collaboration. (2001). *Appraisal of Guidelines Research and Evaluation, AGREE*

Instrument. Retrieved November 21, 2006 from the World Wide Web:

<http://www.agreecollaboration.org/instrument/>.

Services (AGREE Collaboration, 2001), was initially supported by the United Kingdom National Health Services Management Executive and later by the European Union (Cluzeau, Littlejohns, Grimshaw, Feder, & Moran, 1999).

Released in its final and current form in 2001, the purpose of the AGREE instrument is to provide standard criteria with which to appraise CPGs. This appraisal includes evaluation of the methods used to develop the CPG, assessment of the validity of the recommendations made in the guideline, and consideration of factors related to the use of the CPG in practice. Although the AGREE instrument was created to critically appraise CPGs, the process and criteria can also be applied to the development and evaluation of clinical practice protocols. Thus, the AGREE instrument has been expanded for that purpose to standardize the creation and revision of the geriatric nursing practice protocols in this book.

The AGREE instrument has six quality domains: scope and purpose, stakeholder involvement, rigor of development, clarity and presentation, application, and editorial independence. A total of 23 items divided among the domains are rated on a four-point Likert scale from "strongly disagree" to "strongly agree." Appraisers evaluate how well the guideline they are assessing meets the criteria (i.e., items) of the six quality domains. For example, when evaluating the rigor of development, appraisers rate seven items (Figure 1.1). The reliability of the AGREE instrument is increased when each guideline is appraised by more than one appraiser. Each of the six domains receives an individual domain score and, based on these scores, the appraiser subjectively assesses the overall quality of a guideline.

The rigor of development section of the AGREE instrument provides standards for literature-searching and documenting the databases and terms searched. Adhering to these criteria to find and use the best available evidence on a clinical question is critical to the validity of geriatric nursing protocols and ultimately to patient safety and outcomes of care.

Published guidelines can be appraised using the AGREE instrument as discussed previously. In the process of guideline development, however, the clinician is faced with the added responsibility of appraising all available evidence for its quality and relevance. In other words, how well does the available evidence support recommended clinical practices? The clinician needs to be able to support or defend the inclusion of each recommendation in the protocol based on its level of evidence. To do so, the guideline must reflect a systematic, structured approach to find and assess the available evidence.

Levels of Evidence

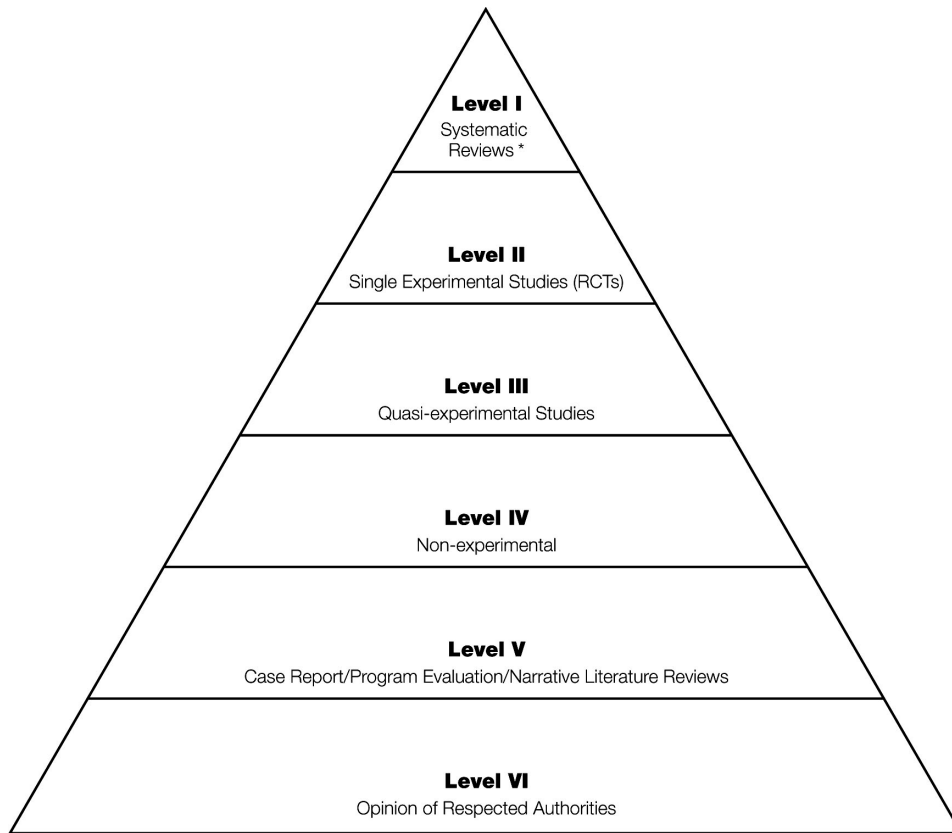
Levels of evidence are a schema for understanding the value of the information presented to the clinical topic or question under review. Among the many schema available, there are commonalities in their hierarchical structure, often represented by a pyramid or “publishing wedge” (Haynes, 2005; McKibbin, Eady, & Marks, 1999, p. 8). The highest level of evidence is at the top of a pyramid and is characterized by the increased relevance of the evidence to the clinical setting (Duke University Medical Library, 2005). Authors in this book rated levels of evidence based on the work of Stetler et al. (1998) and Melnyk and Fineout-Overholt (2005) (Figure 1.2). A Level I evidence rating is given to evidence obtained from synthesized sources: systematic reviews, which can either be meta-analyses or structured integrative reviews of evidence, and CPGs based on Level I evidence. Evidence rated Level II derives from a single experimental study or randomized controlled trial (RCT). A quasi-experimental study such as a nonrandomized controlled single group pre-post test time series or matched case-controlled study is considered Level III evidence. Level IV evidence is a nonexperimental study, such as correlational descriptive research or case-controlled studies. A case report systematically obtained and of verifiable quality or program evaluation data are rated as Level V. Level VI evidence consists of the opinions of respected authorities based on their clinical experience or the opinions of an expert committee, including their interpretation of nonresearch-based information. This level also includes regulatory or legal opinions. Level I evidence is considered the strongest level of evidence.

The Search for Evidence Process

Locating the best evidence in the published research is dependent on framing a focused, searchable clinical question. The PICO format—an acronym for population, intervention (or occurrence or risk factor), comparison (or control), and outcome—can frame an effective literature search (Glasziou, Del Mar, & Salisbury, 2003). One example of an answerable clinical question asked in this book is: “What is the effectiveness of **restraints** in reducing the occurrence of **falls** in patients **65 years of age and older**?” In this question, the population

1.2

Levels of quantitative evidence.



* Systematic Reviews (integrative/Meta-analyses/CPG's based on systematic reviews)
Adapted from: Melnyk & Fineout-Overholt, 2005; Stetler, Morsi, Rucki, Broughton, Corrigan, Fitzgerald, et al., 1998

is patients 65 years of age and older, the intervention is use of restraints, the implied control or comparison is no restraints, and the outcome is falls.

Not every nurse, whether he or she is a clinical practitioner, educator, or administrator, has proficient database-search skills to find the best evidence on a clinical topic. Many nurses report that limited access to resources, gaps in information, literacy skills, and—most of all—a lack of time are barriers to “readiness” for EBP (Pravikoff, Tanner, & Pierce, 2005). For the third edition of this book, the editors enlisted the assistance of the New York University Health Sciences librarian to ensure a standardized and efficient approach to collecting evidence on clinical topics. A literature search was conducted to find the best available evidence for each clinical question addressed in the book. With the framework of the evidence pyramid as a model (see Figure 1.2), the results were rated for level of evidence and sent to the respective chapter author(s) to provide possible substantiation for the nursing practice protocol being developed.

1.3

Search steps used in finding the evidence base for geriatric nursing protocols for the question: “What is the effectiveness of restraints in reducing the occurrence of falls in patients 65 years of age and older?”

1. Select a database (Cochrane Database of Systematic Reviews, CINAHL, MEDLINE...)

2. Translate the terms of the question into the controlled vocabulary of the database. For

example: Falls maps to “Accidental Falls”

3. Apply categorical limits for publication type, year, and age groups

For example:

Limit to age group “Aged, 65 and over”

Limit to publication years 2001–2006

Limit to publication type: “systematic review or meta analysis”

4. Consider other databases, e.g. PsycINFO

5. Evaluate search results; expand or narrow search terms; repeat from Step 2 as needed.

In addition to rating each literature citation as to its level of evidence, each citation was given a general classification, coded as “Risks,” “Assessment,” “Prevention,” “Management,” “Evaluation/Follow-up,” or “Comprehensive.” The citations were organized in a searchable database for later retrieval and output to chapter authors. All authors had to review the evidence and decide on its quality and relevance for inclusion in their chapter or protocol. They had the option, of course, to reject or not use the evidence provided as a result of the search or to dispute the applied level of evidence.

Developing a Search Strategy

Development of a search strategy to capture best evidence begins with database selection and translation of search terms into the controlled vocabulary of the database, if possible. Figure 1.3 details the search strategy used to find the best evidence. In descending order of importance, the three major databases for finding the best primary evidence for most clinical nursing questions are the Cochrane Database of Systematic Reviews, Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Medline or PubMed. In addition, the PsycINFO database was used to ensure capture of relevant evidence in the psychology and behavioral sciences literature for many of the topics. Synthesis sources such as UpToDate® and BMJ Clinical Evidence and abstract journals such as *Evidence Based Nursing* supplemented the initial searches. Searching of other specialty databases may have to be warranted depending on the clinical question.

1.4

An example of a coded literature citation supplied to protocol author.

REF ID: 1661

Level I: Systematic Reviews

Topic 2: Prevention

Gillespie, L. D., Gillespie, W. J., Robertson, M. C., Lamb, S. E., Cumming, R. G., & Rowe, B.

H. (2006). Interventions for preventing falls in elderly people. *The Cochrane Library*, (1).

It bears noting that the database architecture can be exploited to limit the search to articles tagged with the publication type “meta-analysis” in Medline or “systematic review” in CINAHL. Filtering by standard age groups such as “65 and over” is another standard categorical limit for narrowing for relevance. A literature search retrieves the initial citations that begin to provide evidence. Appraisal of the initial literature retrieved may lead the searcher to other cited articles, triggering new ideas for expanding or narrowing the literature search with related descriptors or terms in the article abstract. Using the previous example, a search of the CINAHL database on “falls” and physical restraints in the elderly may ultimately lead the searcher to explore the broader area of patient safety or the related area of side rails. The process of discovery is iterative, not linear. There is no single path to locating best evidence.

An additional feature of this third edition is inclusion of the level and type of evidence for each citation, which can then be applicable to a recommendation for practice (Figure 1.4). This type of standardized approach ensures that this book contains protocols and recommendations for use with geriatric patients and their families that are based on the best available evidence.

Conclusion

The systematic process used for finding, retrieving, and disseminating the best evidence for the third edition of *Evidence-Based Geriatric Nursing Protocols for Best Practice* is a model both for nursing education and clinical practice. Translating nursing research into practice requires competency in information literacy: the ability to gather evidence, critically appraise, and discern the context of a research article. Best evidence was defined as published research, which met the highest level of evidence according to availability. The authors of each chapter, however, had the responsibility of evaluating the quality of the evidence. The AGREE instrument was the standard for the process of evidence-searching and evidence-utilization in chapter and protocol development. The protocols contained in this edition have been refined, revised, and/or developed by the authors using the best available research evidence as a foundation, with the ultimate goal of improving patient safety and outcomes.



References

- AGREE Collaboration (2001). *Appraisal of guidelines research and evaluation, AGREE instrument*. Retrieved November 21, 2006, from <http://www.agreecollaboration.org/instrument/>
- American Nurses Association (2003). *Nursing: Scope and standards of practice*. Maryland: Author.
- Cluzeau, F. A., Littlejohns, P., Grimshaw, J. M., Feder, G., & Moran, S. E. (1999). Development and application of a generic methodology to assess the quality of clinical practice guidelines. *International Journal of Quality Health Care, 11*(1), 21–28.
- Duke University Medical Library (2005). *Evidence pyramid*. Retrieved November 3, 2006, from <http://www.mcilibrary.duke.edu/subject/ebm/searching/ebmresources.pdf>
- Glasziou, P., Del Mar, C., & Salisbury, J. (2003). *Evidence-based medicine workbook*. London: BMJ.
- Haynes, R. B. (2005). Of studies, summaries, synopses, and systems: The “4S” evolution of services for finding current best evidence. *Evidence Based Nursing, 8*(1), 4–6.
- Levin, R. F., & Feldman, H. R. (2006). Teaching evidence-based practice in nursing: A guide for academic and clinical settings. New York: Springer Publishing Company.
- Lucas, J. A., & Fulmer, T. (2003). Evaluating clinical practice guidelines: A best practice. In M. Mezey, T. Fulmer, & I. Abraham (Eds.), *Geriatric nursing protocols for best practice* (2nd ed.). New York: Springer Publishing Company.
- McKibbon, A., Eady, A., & Marks, S. (1999). *PDQ: Evidence-based principles and practice*. Hamilton, Ontario: B. C. Decker, Inc.
- Melnyk, B. M., & Fineout-Overholt, E. (2005). *Evidence-based practice in nursing & healthcare: A guide to best practice* (p. 10). Philadelphia: Lippincott.
- Pravikoff, D. S., Tanner, A. B., & Pierce, S. T. (2005). Readiness of U.S. nurses for evidence-based practice: Many don't understand or value research and have had little or no training to help them find evidence on which to base their practice. *American Journal of Nursing, 105*(9), 40–52.
- Rich, E. R., & Newland, J. A. (2006). Creating clinical protocols with an Apgar of 10. In R. F. Levin & H. R. Feldman (Eds.), *Teaching evidence-based practice in nursing: A guide for academic and clinical settings*. New York: Springer Publishing Company.
- Sackett, D. L., Straus, S. E., Richardson, W. S., Rosenberg, W., & Haynes, R. B. (2000). *Evidence-based medicine: How to teach and practice EBM* (2nd ed.). Edinburgh, Scotland: Churchill Livingstone.
- Stetler, C. B., Morsi, D., Rucki, S., Broughton, S., Corrigan, B., Fitzgerald, J., et al. (1998). Utilization-focused integrative reviews in a nursing service. *Applied Nursing Research, 11*(4), 195–206.