

Elderly Populations in Disasters: Hospital Guidelines for Geriatric Preparedness

November 2009

Written by:

Judith C Ahronheim, MD, MSJ

Bonnie Arquilla, DO, FACEP

Rosemarie Gambale Greene, LCSW, MSW

In collaboration with:

Geriatrics Disaster Preparedness Advisory Committee

Healthcare Emergency Preparedness Program

NYC Department of Health and Mental Hygiene

GERIATRICS DISASTER PREPAREDNESS ADVISORY COMMITTEE

The Geriatrics Disaster Preparedness Advisory Committee comprises the following contributors:

Judith C. Ahronheim, MD, MSJ
Professor of Medicine
SUNY Downstate Medical Center
Member, Bioethics Institute and Adjunct Professor
New York Medical College

Bonnie Arquilla, DO
Associate Professor of Clinical Emergency Medicine
SUNY Downstate Medical Center
Director, Disaster Preparedness, SUNY Downstate Medical Center, University Hospital and Kings County Hospital Centers
Director, New York Institute of All Hazards Preparedness

Judith L. Beizer, PharmD, CGP, FASCP
Clinical Professor
College of Pharmacy & Allied Health Professions
St. John's University

Debra E. Berg, MD
Medical Director
Healthcare Emergency Preparedness Program
Bureau of Communicable Disease
New York City Department of Health and Mental Hygiene

Karen Biancolillo, RN, BSN, MBA
Network Emergency Program Manager
Department of Veterans Affairs
New York / New Jersey Healthcare Network

Joseph B. Breed IV, LNHA, MPS, MFA
Executive Director
St. Margaret's House

Teresa Chan, PharmD
Emergency Medicine Clinical Pharmacist
SUNY Downstate Medical Center

A. Mark Clarfield, MD, FRCPC
Chief of Geriatrics
Soroka Hospital, Ben-Gurion University of the Negev

Elizabeth Clark, MD, FACP
Associate Director/Clinical VISN 3 Geriatrics Research Education and Clinical Center
JJ Peters (Bronx) VAMC
Associate Professor of Geriatrics
Mount Sinai School of Medicine

Carl H. Coleman, JD
Professor of Law and Director Health Law and Policy Program
Seton Hall Law School

Eva B. Cramer, PhD
Distinguished Service Professor of Anatomy and Cell Biology
Vice President for Biotechnology and Scientific Affairs
SUNY-Downstate Medical Center

Bindy L. Crouch, MD, MPH
Emergency Preparedness Medical Coordinator
Healthcare Emergency Preparedness Program
Bureau of Communicable Disease
New York City Department of Health and Mental Hygiene

Donald J. Decker, LCSW, CASAC
 Emergency Response Coordinator
 Office of Mental Health Disaster
 Preparedness and Response
 New York City Department of Health
 and Mental Hygiene

Jacob Dimant, MD
 Medical Director/Chief of Geriatrics
 Lutheran Augustana Center
 Lutheran Medical Center
 Claudia Fine, LCSW, MPH
 Executive Vice President and Chief
 Professional Officer
 SeniorBridge

**Neal Flomenbaum, MD, FACP,
FACEP**
 Emergency Physician in Chief
 New York Presbyterian Hospital-Weill
 Cornell Medical Center
 Medical Director
 NYP*EMS
 Professor of Clinical Medicine
 Weill Cornell Medical College, Cornell
 University

Joyce F. Fogel, MD
 Chief, Section of Geriatrics
 Department of Medicine
 Saint Vincents Catholic Medical Centers
 – Manhattan
 Clinical Associate Professor of Medicine
 New York Medical College

Della Frazier-Rios
 Senior Vice President, Director of
 Education & Outreach
 Alzheimer's Association – NYC Chapter

Nicholas Galeota, MD, RPh
 Director of Pharmacy
 SUNY – Health Science Center at
 Brooklyn's University Hospital of
 Brooklyn

Joel Gernsheimer, MD, FACEP
 Attending Physician and Visiting
 Associate Professor
 Director of the Sub-Division of Geriatric
 Emergency Medicine
 SUNY Downstate Medical Center, KCH
 Medical Center

Lewis R. Goldfrank, MD
 Professor and Chair, Emergency
 Medicine
 New York University School of
 Medicine
 Director, Emergency Medicine
 Bellevue Hospital/NYU Hospitals/VA
 Medical Center
 Medical Director, New York City Poison
 Center

**Rosemarie Gambale Greene, LCSW,
MSW**
 Licensed Clinical Social Worker

Alan Hom, LMSW
 Deputy Director
 NYC Department for the Aging

**Mary Ann Howland, PharmD,
DABAT, FAACT**
 Clinical Professor of Pharmacy
 St. John's University College of
 Pharmacy
 Adjunct Professor of Emergency
 Medicine
 New York University School of
 Medicine
 Consultant, New York City Poison
 Control Center
 Consultant, Bellevue Hospital
 Emergency Department

Alan Hui, PharmD, BCPS
 Associate Director of Pharmacy
 Critical Care Clinical Pharmacist
 SUNY Downstate Medical Center

**Pascal James Imperato, MD,
MPH&TM**

Dean and Distinguished Service
Professor
Graduate Program in Public Health
SUNY Downstate Medical Center

Amber B. Jones, M.Ed

Consultant
Center to Advance Palliative Care
Hospice and Palliative Care Association
of NY State

Craig L. Katz, MD

Clinical Assistant Professor of
Psychiatry
Mount Sinai School of Medicine

Stephan A. Kohlhoff, MD

Assistant Professor of Pediatrics
Division of Pediatric Infectious Diseases
SUNY Downstate Medical Center

Bill Lane, LCSW, CASAC

Deputy Director of Social Work
North Bronx Healthcare Network
Jacobi Medical Center

Marcelle Layton, MD

Assistant Commissioner
Bureau of Communicable Disease
New York City Department of Health
and Mental Hygiene

Carol Levine

Director, Families and Health Care
Project
United Hospital Fund

Jed A. Levine, MA

Executive Vice President
Director, Programs and Services
Alzheimer's Association – NYC Chapter

Kathy A. McMahon, BA

President and CEO
Hospice and Palliative Care Association
of New York State

Megan Medina, MPA

Project Lead, Pandemic Planning
Business Continuity & Emergency
Management
Ministry of the Attorney General
Toronto, ON

Diane E. Meier, MD

Director, Center to Advance Palliative
Care
Director, Hertzberg Palliative Care
Institute
Professor, Departments of Geriatrics and
Medicine
Gaisman Professor of Medical Ethics
Mount Sinai School of Medicine

Jane Morris, MS, RN, ACHPN

Hospice RN
Hospice Care Network

Jackie Morrison, RN, MA

Senior VP Clinical Services
SeniorBridge, INC

Jeffrey N. Nichols, MD

Vice President for Medical Services
Cabrini Eldercare Consortium

Nora O'Brien, MA

Senior Program Officer
The John A. Hartford Foundation

Cynthia X. Pan, MD, FACP, AGSF

Medical Director
Hospice Care Network
Adjunct Associate Professor, Geriatrics
Mount Sinai School of Medicine

Barbara E. Paris, MD, FACP

Clinical Professor of Medicine and
Geriatrics
Mount Sinai School of Medicine
Director of Geriatrics and Vice Chair
Department of Medicine
Maimonides Medical Center

Ian Portelli, PhD, MScCRA

Director for Large Scale Emergency
Readiness
New York University, Center for
Catastrophe,
Preparedness & Response
New York University School of
Medicine Department of Emergency
Medicine

Kathleen E. Powderly, CNM, PhD

Acting Director, Division of Humanities
in Medicine
SUNY Downstate Medical Center

Tia Powell, MD

Director, Montefiore-Einstein Center for
Bioethics

Caryn B. Resnick

Deputy Commissioner for External
Affairs
New York City Department for the
Aging

Ann Rinchuso, MPH

Preparedness Planner
Medical Reserve Corps Program
Manager
Bureau of Emergency Management
NYC Department of Health and Mental
Hygiene

Victor G. Rodwin, PhD, MPH

Professor of Health Policy and
Management
Robert F. Wagner Graduate School of
Public Service
New York University
Co-Director
World Cities Project
International Longevity Center

Michael Stern, MD

Assistant Professor and Attending
Physician
Department of Emergency Medicine
Co-Director, Geriatric Emergency
Medicine Fellowship
New York-Presbyterian Hospital/Weill
Cornell Medical College

Daniel P Sulmasy, OFM, MD, PhD

Kilbride-Clinton Professor of Medicine
and Ethics
The University of Chicago

Al Villacara, DMD

Health and Medical – Preparedness
Specialist
New York City Office of Emergency
Management

Caroline A. Vitale, MD

Clinical Assistant Professor of Medicine
Division of Geriatrics
University of Michigan

Ian Taylor, MD, PhD

Dean, SUNY-Downstate College of
Medicine,
Senior Vice President for Biomedical
Education and Research

Nancy VanDevanter DrPH, RN

Associate Professor
New York University College of
Nursing and Dentistry
Muriel and Virginia Pless Center for
Nursing Research

Len Walsh

Executive Vice President/Chief
Operating Officer
St. Barnabas Hospital

Linda Whitaker, MPA

Assistant Commissioner
Office for Emergency Preparedness
NYC Department for the Aging

Gail Wolsk, MSW

Director, Office of Mental Health
Disaster Preparedness and Response
Division of Mental Hygiene
New York City Department of Health
and Mental Hygiene

Edited by:

Lise Millay Stevens, MA; Deputy Director, Publications

Administrative Support:

Patricia Roblin, M.S.

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	8
SECTION 1. TRIAGE AND ONGOING RISK ASSESSMENT.....	18
SECTION 2. SOFT CARE AREA.....	30
SECTION 3. CLINICAL CARE OF ACUTELY ILL ELDERLY PATIENTS.....	42
SECTION 4. MEDICATIONS: PRESCRIBING AND DISPENSING.....	64
SECTION 5. MENTAL HEALTH ISSUES.....	86
SECTION 6. ETHICAL AND LEGAL ISSUES.....	105
SECTION 7. PALLIATIVE CARE	119

EXECUTIVE SUMMARY

PURPOSE

This toolkit, *Elderly Populations in Disasters: Hospital Guidelines for Geriatric Preparedness*, has been developed by the New York City Department of Health and Mental Hygiene (www.nyc.gov/health) (DOHMH) to help hospitals prepare for treating and managing elderly patients during disasters. The toolkit is designed to:

- Enable New York City (NYC) hospitals to identify gaps in their emergency plans to meet the needs of geriatric patients during a disaster
- Identify and develop tools and methods to fill these gaps, and to guide the health care community in caring for elderly populations during disasters so this vulnerable group receives the best care possible
- Encourage the development of model plans that can be adapted to specific health care institutions

The recommendations in the toolkit are specifically tailored to meet the needs of elderly patients (especially those who are frail) during disasters. Some of the protocols may be applicable to the care of other non-elderly, vulnerable adults, including those who:

- Have lost the ability to make decisions due to chronic neurological or psychiatric illness
- Are developmentally disabled
- Are physically disabled

Lessons Learned from Recent Disasters

The topics covered in the kit were gleaned from experiences in previous disasters^{9, 11-14} and aim to address the following challenges:

- The difficulty of locating and tracking seniors and other vulnerable adults
- The limited number of shelter options, and the difficulty of accessing them
- The limited number of geriatric specialists available to care for frail, elderly patients
- The need to assemble, in the planning stages, a multidisciplinary group of professionals with geriatric training or experience
- The need to foster cooperation between community-based and citywide agencies with geriatric expertise
- The tendency of the frail elderly people who are already vulnerable to become more so during and after a disaster (in addition to physical limitations and cognitive disorders, chaotic circumstances and unfamiliar settings may heighten confusion and agitation, complicating care)

- The need to address post-disaster, long-term needs; even individuals not needing immediate medical care may need adequate housing, basic services and access to entitlements, such as Social Security checks or insurance coverage papers
- The need to provide information and support to families seeking missing adults

WHY A GERIATRICS TOOLKIT?

There are myriad issues affecting elderly adults that become accentuated in emergency situations. Facility administrators and clinicians need to be aware of the following concerns.

Physical Vulnerability and Older Adults

The elderly population is physiologically heterogeneous—healthy, older adults generally do well under ordinary circumstances, but in a disaster, the loss of physiological reserves associated with aging and other physical limitations, such as sensory deficits, cognitive disorders and chronic illnesses, can put them at risk.

Older adults have other risk factors; they tend to have the lowest average income of all age groups, and elderly immigrants may have language barriers¹ that hinder their ability to communicate and advocate for themselves.

Health Care Shortages

During a disaster, existing health care shortages^{2,3,4} would have the greatest impact on the elderly, who currently: (1) comprise the highest number of patients coming to hospitals and emergency rooms by ambulance; (2) have the highest hospitalization rate, highest mortality and greatest length of stay for influenza-related hospitalizations;⁵ and (3) use a disproportionate share of hospital resources for virtually all medical illnesses.⁶

Emergency rooms are often used as safe havens when patients' regular caregivers are unavailable; during a disaster, this trend is bound to be magnified as elderly individuals lose access to services and caretakers.

A National Dearth of Geriatricians

In the United States, there is a shortage of geriatricians, and although New York State has more geriatricians than the national average, there were only 722 in the state as of 2005.⁷ Many non-geriatricians care for elderly patients but often are not trained to care for those who are truly frail, leading to age biases, lessened expectations, inadequate assessment and preventable medical errors.^{7,8,9,10,11}

Lessons Learned from Previous Disasters

Prior disasters illustrate just how vulnerable the elderly are—approximately 75% of people who died during Hurricane Katrina were 75 years of age or older.¹² As was true in New Orleans at that time, many of the elderly in NYC are poor and/or live alone, placing them at risk.¹³

During the 2001 World Trade Center attacks, the average age of the individuals who died

was 39 years,¹⁴ yet many home-bound patients (most of whom were elderly) were affected, unable to receive routine, daily assistance in the days after the attacks, and remained without assistance until found in their homes by others.¹⁵ During the August 2003 blackout in the city, most adult hospital admissions were elderly individuals whose electrically-powered medical devices failed.^{16,17}

The need for hospitals to pay special attention to the frail elderly and other vulnerable populations in a disaster has been increasingly recognized; ^{18, 19, 20, 21,22,-23} hospitals must be prepared to treat these patients, who may be sicker than others or who may need assistance and amenities not typically provided by acute care facilities.

ASSEMBLING THE TOOLKIT

Reviewers

The Geriatrics Disaster Preparedness Advisory Committee was formed in 2007. Committee members contributed ongoing expertise and reviewed and revised the Toolkit. Committee membership was comprised of experts in the fields of geriatric medicine, emergency medicine, disaster preparedness, pharmacology, nursing, social work, geropsychiatry, epidemiology, public health, family care-giving, palliative care, ethics, law, administration, and ambulatory, hospital and long-term care.

Research and Resources

The authors of the Toolkit completed a comprehensive review of existing resources (and others adaptable to geriatric patients) and interviewed a wide range of experts in the fields mentioned above, most of whom served on the Advisory Committee and were available for interim guidance. These individuals, in turn, identified other experts, expanding the membership of the advisory group. The authors kept updated on initiatives at community organizations and alliances, and communicated regularly with colleagues and Advisory Committee members.

Overview of the Toolkit

The Toolkit is organized into 7 sections, each with basic information on that section's topic areas, followed by specific guidelines and tools for their implementation. The topic areas are:

- Section 1. Triage and Ongoing Risk Assessment
- Section 2. Soft Care Area
- Section 3. Clinical Care of Acutely Ill Elderly Individuals
- Section 4. Medications: Prescribing and Dispensing
- Section 5. Mental Health Issues
- Section 6. Ethical and Legal issues
- Section 7. Palliative Care

GENERAL GUIDELINES FOR FACILITIES

In addition to the Section recommendations, the Committee developed general

recommendations and planning guidelines for health care institutions that are preparing plans to meet the needs of the geriatric population in their communities during disasters. The guidelines are:

1. Include in the Facility's Institutional Disaster Plan Specific Guidelines for the Care of Geriatric Patients

2. Identify Staff with Expertise in Geriatric Medicine and Related Disciplines

Ensure that all disciplines are represented on the Emergency Preparedness Committee, including:

- **Geriatric specialists** to serve as planners, staff leaders, educators and direct care providers or consultants
- **Geropsychiatrists** or other mental health professionals with geriatric training
- **Geriatric-trained registered and advance practice nurses and care providers**
- **Experienced hospice and palliative care physicians and other clinicians**
- **Ethicists or members of the hospital's Ethics Committee**, including the facility's lawyers
- **Professionals in social work, nursing case management or related fields** who have expertise in accessing community resources for safely discharging elderly patients and ensuring follow-up care
- **Professionals in crisis and grief counseling** for families and elderly individuals

Institutions that lack experts in the above fields should use outside consultants for planning and staff training.

3. Plan to Implement Guidelines and Policies

These plans should address key issues in managing the frail elderly and other vulnerable adults; existing model policies include:

- New York State Task Force draft guidelines for ventilator allocation (to view these guidelines, visit: www.health.state.ny.us/diseases/communicable/influenza/pandemic/ventilators/docs/ventilator_guidance.pdf)
- Plans for deploying unaffiliated clinical providers within the Incident Command Structure²⁴

4. Update or Adopt New Policies Addressing Key Issues

These policies may include:

- The use of non-clinical volunteers from hospital staff and prescreened volunteers from the community to assist in patient care, including feeding, toileting and other basic tasks
- Clinical decision-making for patients who are unable to do so and have not executed a formal advance directive, such as a health care proxy

5. Provide Training in Basic Geriatric Care for Health Care Professionals and Other Staff

Ensure basic geriatric concepts are taught throughout the institution, including targeted in-service training and provision of the following resources:

Guidelines on:

- When to obtain geriatric consultation or ongoing care by a geriatrician
- Dealing with patients with dementia
- Medications, including prescribing, dispensing and administration appropriate for the geriatric population; include dosing information, drug side-effects common in older patients and information on drugs that are inappropriate for the elderly
- Assessing and managing pain and other distressing symptoms that commonly occur in patients with complex, progressive, chronic or acute illnesses
- Principles of ethical and legal issues, including:
 - The special circumstances in disasters
 - The care of patients who are not expected to survive, including decision-making for patients who are unable to do so
 - The use of opioids and sedatives for terminal ventilator withdrawal, intractable pain and other symptoms
- The use of translation services
- When and how to obtain and administer palliative care and hospice services

Methods of:

- Communicating with the hearing and visually impaired
- Communicating with older patients and their families by staff who can provide mental health services, such as psychological first aid, during and immediately following a disaster
- Coping with angry responses from patients and families denied access to ventilators
- Providing grief counseling and emotional support for patients and caregivers

6. Maintain an Inventory of Essential Inpatient and Outpatient Medications to Serve the Special Needs of the Elderly

Be sure to include:

- Special formulations, such as liquid, crushable and low-dose medication
- A minimum 4-day supply of common outpatient medications for elderly patients who may not be able to return home
- An adequate supply of injectable morphine, and other medications and equipment needed for palliative care

7. Establish Methods of Identifying and Tracking High-risk, Functionally-impaired Patients

Initiate this type of triage in the emergency department (ED) to facilitate admission to special locations in the hospital or other follow-up care.

8. Determine the Type and Location of Geriatric Care in the Institution

This may include an Acute Care for Elders (ACE) unit, a special bed cluster, a mobile ACE unit, a mobile geriatric consultation team and a Soft Care Area (see next Guideline).

9. Provide a Soft Care Area

This area is a secure, specialized holding space staffed by clinical and other trained employees to care for medically stable but frail elderly people and other vulnerable adults who cannot be safely discharged from the ED because of the need for psychosocial support and medical oversight. Patients with similar requirements who **are** ready for discharge from acute wards may be housed in the Soft Care Area when inpatient beds are in short supply.

10. Identify Frail or Disabled Elderly Individuals and Other Vulnerable Adults Before a Disaster

Outpatient providers and ED staff should identify in advance frail or disabled individuals to ensure they have emergency preparedness plans in place. Information provided by staff should include:

- Advice for patients, their caregivers and their adult children about disaster preparedness methods for the home
- Referral to community agencies and community-based disaster planning resources, such as shelter-in-place initiatives, alternative care sites or alternate, home-based resources

11. Identify Individuals with Terminal or Life-threatening Illnesses Who Do Not Wish to be Hospitalized and Whose Care Could be Provided at Home

Outpatient providers should be alert to this option and:

- Be supplied with blank documents, such as health care proxy and non-hospital Do Not Resuscitate forms, as well as information on hospice referral
- In the case of emergency department providers, advise patients to discuss these options with their primary care physicians

12. Identify Alternative Care Sites

Health care institutions should work with city agencies to locate appropriate sites (such as nursing homes, clinics, inpatient hospices or other low-acuity care facilities) for patients who will not require a hospital bed but may require subacute, custodial, palliative or end-of-life care.

Once sites are identified, institutions and agencies should establish: (1) the means of communication and transport between facilities; (2) standards of admission; (3) memoranda of understanding or contractual agreements, all of which are subject to

immediate activation in the event of a disaster.

13. Establish Relationships with Community-based Senior Service Agencies and Create Coordinated Disaster Plans for All Vulnerable Adults

14. Plan for a Family Information and Support Center

This center should be designed to serve adults seeking missing adults during disasters, and should include special areas and services for families and other concerned parties connected to frail elderly or vulnerable adults.

15. On an Ongoing Basis, Identify and Credential Unaffiliated Professionals Who Are Willing to Serve as Volunteers

Recruit individuals from the fields of geriatric medicine, nursing and related fields, (especially residents in the local community). Establish in advance mandates on credentialing unaffiliated, professional volunteers during a disaster.

16. Consider Using Non-clinical Volunteers to Help Staff

Health care institutions should, on an ongoing basis, identify, credential and train volunteers, especially those who live nearby, and enable non-clinical volunteers (as well as non-professional hospital staff and family members) to provide direct patient services, such as feeding, toileting and other basic tasks.

SUMMARY

A disaster is a dynamic situation that calls for flexibility, creativity and action, since mitigation often requires changes in normal processes and the unexpected assumption of new duties. *Elderly Populations in Disasters: Hospital Guidelines for Geriatric Preparedness* is a repository of best practices from various medical disciplines that aim to guide hospitals in planning for the care of elderly patients during disasters.

The guidelines are designed as templates to help institutions think and plan differently for the care of frail elderly and other vulnerable adults, and can be modified to fit the needs of individual institutions. The overarching goal of the toolkit is to help health care institutions achieve the highest standard of care possible and have staff perform as well as possible in caring for elderly individuals during disasters.

REFERENCES

1. U.S. Census Bureau. State and County Quick Facts.
<http://quickfacts.census.gov/qfd/states/36000.html>. Accessed March 24, 2009.
2. U.S. General Accounting Office. Hospital Preparedness: *Most Urban Hospitals Have Emergency Plans but Lack Certain Capacities for Bioterrorism Response*. Washington, D.C.: GAO, August 2003. GAO publication 03-924:15.
www.gao.gov/new.items/d03924.pdf. Accessed March 24, 2009.
3. Burt CW, McCaig LF, Valverde RH. Analysis of ambulance transports and diversions among US emergency departments. *Ann Emerg Med*. 2006;47:317-326.
4. Commission on Health Care Facilities in the 21st Century. A Plan to Stabilize and Strengthen New York's Health Care System. Final Report of the Commission on Health Care Facilities in the 21st Century. New York, NY: December 2006.
<http://www.nyhealthcarecommission.org/docs/final/commissionfinalreport.pdf>
Accessed March 24, 2009.
5. Thompson WW, Shay DK, Weintraub E, et al. Influenza-associated hospitalizations in the United States. *JAMA*. 2004;292:1333-1340.
6. DeFrances CJ, Hall MJ. Advance Data from Vital and Health Statistics 2005: National Hospital Discharge Survey. no 385. July 12, 2007. Hyattsville, MD: Centers for Disease Control and Prevention, National Center for Health Statistics.
<http://www.cdc.gov/nchs/data/ad/ad385.pdf> Accessed March 24, 2009.
7. Association of Directors of Geriatric Academic Programs. Final Report. The Status of Geriatrics Workforce Study. February 1, 2005–January 31, 2009.
<http://129.137.5.214/GWPS/files/ADGAP%20Final%20Report,%20Phase%20III,%202006-2009%20for%20web.pdf>. Accessed November 14, 2009.
8. Gross J. Geriatrics lags in age of high-tech medicine. *New York Times*. October 18, 2006; A-1.
www.nytimes.com/2006/10/18/health/18aged.html?ex=1162616400&en=0cc7e89e7be08f53&ei=5070 Accessed March 24, 2009.
9. Gurwitz JH, Field TS, Harrold LR, et al. Incidence and preventability of adverse drug events among older persons in the ambulatory setting. *JAMA*. 2003;289:1107-1116.
10. Bates DW, Cullen DJ, Laird N, et al. Incidence of adverse drug events and potential adverse drug events. Implications for prevention. ADE Prevention Study Group. *JAMA*. 1995;274:29-34.
11. Lewis LM, Miller DK, Morley JE, et al. Unrecognized delirium in ED geriatric patients. *Am J Emerg Med*. 1995;13:142-145.

12. Caring for Seniors in a National Emergency: Can We Do Better? U.S. Special Senate Committee on Aging (testimony of Jean Cefalu, R.N.)
http://aging.senate.gov/hearing_detail.cfm?id=270708& Accessed October 15, 2009.
13. Gusmano MK, Hodgson MG, Tobier E. Issue Brief: Old and Poor in New York City. International Longevity Center. New York, NY: September-October, 2002.
<http://www.ilcusa.org/media/pdfs/b20021121a.pdf> Accessed March 24, 2009.
14. Deaths in World Trade Center terrorist attacks: New York City, 2001. *MMWR*. September 11, 2002;51:16-18.
15. Rodwin VC, Gusmano MK, eds. *Growing Older in World Cities*. Nashville, TN: Vanderbilt University Press; 2006: 4-5.
16. Prezant DJ, Clair J, Belyaev S et al. Effects of the August 2003 blackout on the New York City healthcare delivery system: a lesson for disaster preparedness. *Crit Care Med*. 2005;1 (suppl): S96-S101.
17. Beatty ME, Phelps S, Rohner C, Weisfuse I. Blackout of 2003: Public health effects and emergency response. *Public Health Reports*. 2006;121:36-44.
18. Nora O'Brien, M.A. Issue Brief: Emergency Preparedness for Older People. International Longevity Center. New York, NY: January - February, 2003.
www.ilcusa.org/media/pdfs/epopib.pdf
19. Baylor College of Medicine/ American Medical Association. Recommendations for Best Practices in the Management of Elderly Disaster Victims.
www.bcm.edu/pdf/bestpractices.pdf Accessed March 24, 2009.
20. American Medical Association/American Public Health Association. Improving health system preparedness for terrorism and mass casualty events: Recommendations for action. Consensus report. July 2007.
www.ama-assn.org/ama1/pub/upload/mm/415/final_summit_report.pdf
Accessed March 24, 2009.
21. The Joint Commission. Hospital Accreditation Program – Accreditation Program: Hospital Emergency Management. 2009.
www.jointcommission.org/NR/rdonlyres/DCA586BD-1915-49AD-AC6E-C88F6AEA706D/0/HAP_EM.pdf
22. New York City Department of Health and Mental Hygiene. Preparedness Focus Areas: Pediatric Preparedness. New York, NY: November 2008.
<http://home2.nyc.gov/html/doh/html/bhpp/bhpp-focus-ped.shtml> Accessed March 24, 2009.
23. Aldrich N, Benson WF. Disaster preparedness and the chronic disease needs of vulnerable older adults. *Prev Chronic Dis*. 2008;5:1-7.

www.cdc.gov/pcd/issues/2008/jan/07_0135.htm Accessed March 24, 2009.

24. New York State Department of Health. Allocation of Ventilators in an Influenza Pandemic: Planning Document. Draft for Public Comment. March 15, 2007. www.health.state.ny.us/diseases/communicable/influenza/pandemic/ventilators/docs/ventilator_guidance.pdf

25. Cappiello J. General Emergency Preparedness for Providers: Guidelines/Protocols/Checklist. Greater New York Hospital Association, New York, NY: October 15, 2007. www.gnyha.org/31/Default.aspx#39 Accessed March 24, 2009.

SECTION 1. TRIAGE AND ONGOING RISK ASSESSMENT

PURPOSE

This section provides guidance for health professionals and other staff in assessing elderly patients who present to hospital emergency departments (EDs) during a disaster. The recommendations are aimed at helping hospitals plan for large-scale disaster triage that specifically addresses the presentations and needs of elderly patients.

BACKGROUND

Triage and the Frail Elderly

The purpose of triage is to provide the greatest good for the largest number of people. In a disaster, when resources are limited, the first priority is to identify and treat those who need immediate care and have the greatest likelihood of survival. Young, otherwise healthy individuals often receive more life-saving care than older, chronically ill individuals. EDs must be prepared to address diagnostic difficulties, prognostic uncertainty, ethical dilemmas and social needs specific to older patients. [See Section 1, Tool 1-1, Triage of Elderly Individuals and Others during Disasters, page 22](#) for more information on triage of elderly and other vulnerable adults.

Diagnostic Difficulty in Elderly Patients

Accurate and timely diagnosis of patients of all ages is critical for prioritization during triage. Unfortunately, many factors hinder accurately diagnosing acutely ill, elderly patients, resulting in delayed diagnoses, under- and over-treatment and poor outcomes.¹⁻² Basic precepts to consider when assessing elderly individuals include:

- **Physiologic heterogeneity.** When evaluating acutely ill, older adults, triage personnel must take into account that these individuals have a variable range of physical and cognitive function.
- **Unknown baseline functional status.** Many older adults coming to EDs have delirium³ or dementia,^{4,5} making it difficult to obtain an accurate medical history. In addition, while many have dementia or physical impairments,⁶ others have normal baseline function, which may be difficult to discern in acute illness. Whenever possible, care providers should try to ascertain baseline functional status from reliable sources, including family members, home attendants or nursing home staff.
- **Chronic disease and comorbidity.** Multi-system disease creates symptomatic “noise” in patients and is common in geriatric presentations. Multiple diagnoses may be possible; therefore, physicians should not necessarily “unify” the diagnosis (combine symptoms into a single diagnosis). Also, pathologic or physiologic changes due to aging may be interpreted as abnormalities on X-rays or other tests, even if no clinically important disease is present; conversely, tests

may be normal despite significant clinical illness. These findings can be very misleading and result in misdiagnosis.

- **Atypical presentations.** Many acute illnesses present atypically in the elderly.^{1, 7-14} Commonly, diseases present with altered mental status, instead of, or in addition to, presenting with classic signs or symptoms that would direct the clinician to the affected organ system. There also may be a paucity of symptoms, or signs may be subtle or absent.
- **A lack of trained geriatricians.** Geriatric medicine training develops skills in functional assessment, cross-specialty geriatric prescribing, and management of multi-system disease and chronic illness. The field also prepares clinicians to manage medical and behavioral problems in patients with dementia and a range of other syndromes that affect both frail and relatively healthy elderly patients.

The current severe shortage of certified geriatricians¹⁵⁻¹⁶ likely contributes to adverse events in the elderly that would otherwise be preventable.¹⁷⁻¹⁸ As is true in children,¹⁹ misdiagnosis is common in the treatment of older patients.^{2,20}

Medically Stable Patients Unable to Go Home

As many as 67% of the elderly patients who present to EDs have some degree of functional impairment²¹⁻²³ that creates both non-medical and medical demands for which EDs are not well equipped. In a disaster, this problem may be compounded by the arrival of patients in the ED whose home care services have been disrupted or whose caregivers may not be available due to disaster-related circumstances.^{21,24}

Because of the high rate of coexisting chronic illness and syndromes in this group^{25,26,27} patients may require attention even though they appear to be otherwise medically stable and ready for discharge. Administering medication, observation for subtle clinical changes, preventing falls, feeding and toileting are tasks that would fall to ED and holding-area staffs, and would affect pharmacy inventory. (For more information, [see Section 2, Soft Care Area, page 30](#)).

Ethical Dilemmas

During a disaster, important ethical dilemmas about the care of seriously ill, elderly patients will surface and require resolution in the ED. Ethical and legal guidelines prepared in advance can facilitate appropriate allocation of resources, protect the rights of patients and alleviate concerns among health professionals facing life-and-death decisions. These issues are addressed in detail in [Section 6, Ethical and Legal Issues, page 105](#).

SUMMARY

Complex medical, social, and ethical factors are involved in making triage decisions for the frail elderly, which can also be true of certain non-elderly adults who are vulnerable, functionally impaired, or have a history of life-threatening or terminal illness.

PLANNING GUIDELINES

The following guidelines can help health care facilities and their staffs plan for and manage geriatric populations during disasters.

1. Identify Facility Staff with Geriatric Expertise

- **Geriatric specialists as planners and staff leaders.** Hospitals should identify staff leaders to serve on the Emergency Preparedness Committee, provide staff education and oversee geriatric care during a disaster who are experienced in, and knowledgeable about, geriatric clinical care.

Ideally, a clinical staff leader would be an experienced physician holding a Certificate of Added Qualifications in geriatrics or an advance practice nurse with training in geriatrics (a gerontologic, nurse practitioner, or clinical nurse specialist).

The Committee should also include at least one representative from social services, such as a social worker or nurse case manager.

- **Additional clinicians with geriatric training or expertise.** Clinical department heads should identify clinicians with training or experience in geriatrics to provide ongoing or consultative clinical care to frail elderly patients in the ED, or to be deployed to work collaboratively with the department's clinicians during a disaster. In addition to fully credentialed clinicians, geriatric fellows in training could fulfill these roles. A database of these clinicians should be maintained by the hospital's Emergency Preparedness Committee and coordinated with the appropriate departments.
- **External consultants.** Institutions seeking additional geriatric expertise can turn to external consultants to assist in training or policy development ([see Section 1, Resources, Gerontological Society of America, page 29](#)).

2. Be Prepared to Operationalize Relevant Guidelines that have been Developed for Use in Disasters

Guidelines should address key issues in the management of the frail elderly and other vulnerable adults, specifically:

- New York State Task Force draft guidelines for ventilator allocation³⁴ ([see Section 1, Tool 1-4, page 25](#))
- Methods of credentialing and deploying unaffiliated clinical providers within the Incident Command Structure³⁵ ([see Section 6, Ethical and Legal Issues, page 105](#))

Consider developing additional policies to address unmet needs, including

- Guidelines on clinical decision-making for patients who lack the capacity and

have not executed a formal advance directive, such as a health care proxy³⁶

- Use of trained, nonclinical volunteers to augment care for patients who require assistance in feeding and toileting ([see Section 6, Ethical and legal Issues, page 105](#) for further discussion)

3. Provide Basic Geriatric Assessment Training Before Disasters

Hospitals should develop methods of training emergency department staff and other triage personnel in basic geriatric assessment, rapid geriatric assessment tools ([see Section 1, Tools 1-1 through 1-3, pages 22-24](#) below, for specific guidance during triage. For further reading and rapid learning tools, [see Section 3, Clinical Care of the Acutely Ill Elderly, page 42](#)).

4. Establish Methods of Identifying High-risk, Functionally Impaired Patients

Hospitals should develop ways to identify these individuals in the emergency department so patients are triaged to specific locations in the hospital or for other follow-up (for example, frail elderly patients might benefit from admission to an Acute Care of the Elderly [ACE] unit^{37,38} or specialized bed cluster; while patients with cognitive or physical impairments may benefit from transfer to a Soft Care Area ([see Section 2, Soft Care Area, page 30](#)) or follow-up by services such as geriatrics, palliative care or other, if available.

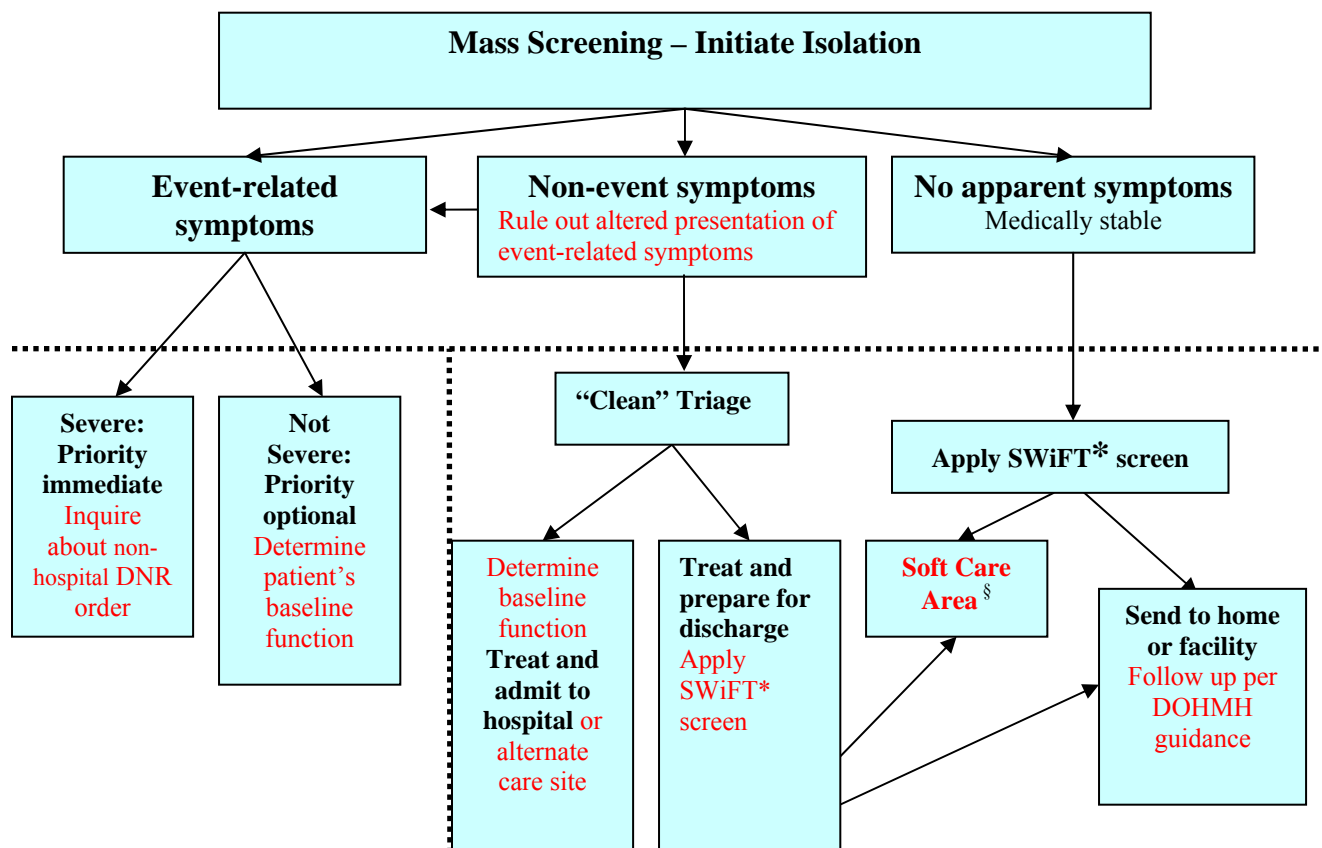
5. Provide a Secure Area for Elderly and Other Vulnerable Adults Who Are Medically Stable but Cannot be Safely Discharged

Training and assessment tools should be provided to ED staff to help them identify patients who seem medically stable but have chronic disabilities that require observation in an appropriately staffed area while they await discharge or transfer to a higher level of care. The multidisciplinary staff in this area should be prepared to link patients with appropriate social services and observe them for changes in clinical status. The staff also should communicate with the ED and the Family Information and Support Center, as described in [Section 2, Tool 2-2, Psychosocial Triage in the Soft Care Area, page 35](#).

TOOLS

Tool 1-1. Triageing Elderly Individuals and Others during Disasters

This flow diagram takes into account special considerations during triage of frail elderly and others who may have specific vulnerabilities or goals of care.



Red text indicates special considerations for frail elderly patients and other adults who may have cognitive or physical impairments, or have a history of life-threatening or terminal illness

* Seniors Without Families Triage Tool; see Tool 1-2 immediately below

§ [See Section 2, Soft Care Area, page 30](#)

----- Indicates border between contaminated and “clean” areas of hospital.

Tool 1-2. Seniors without Families Triage (SWiFT) Tool

SWiFT is a public health screening tool used to distinguish patients who can function independently from those who require assistance in activities of daily living (ADL) ([see additional discussion in Section 2, Soft Care Area, page 30](#)).

Tool 1-2. Seniors without Families Triage (SWiFT) Tool*		
SWiFT Level	Explanation	Action
1	Cannot perform at least one basic activity of daily living (ADL): eating, bathing, dressing, toileting, walking without assistance	Transfer to a location that can provide skilled or personal care such as an assisted living facility, nursing home or hospital
2	Has trouble with instrumental activities of daily living (IADL) such as finances, benefits management, assessing resources	Connect to a local agency services case manager
3	May need only minimal assistance with ADL and IADL	Connect to a rescue organization service such as the Red Cross
<p>* May be used before a disaster event or at other times when appropriate SWiFT – developed by an ad hoc committee of Harris County Texas aging providers; chart adapted with permission and available with detailed instructions and information;²⁵ visit: www.bcm.edu/pdf/bestpractices.pdf</p>		

Tool 1-3. Findings that May be Misleading in Elderly Patients

This Table provides assistance in avoiding misdiagnosis when pathologic or physiologic aging changes appear on physical examination or in test results, even if no clinically important disease is present ([see Section 3, Tool 3-7, Acute Illnesses that May Have Altered Presentations in the Elderly, page 50](#))

Tool 1-3. Findings that May Be Misleading in Elderly Patient	
Finding	Comment
Brain Imaging	
Cortical atrophy	Normal age finding
Nonspecific white matter changes	Present in many neurologically-normal older adults; may predict future cognitive decline
Old infarcts	Often silent; limited relevance to clinical findings
X-Rays	
Normal proximal femur or pelvis in patient with new leg pain and/or gait disturbance	More than 50% of patients with suspected hip fracture and normal plain films have MRI evidence of pelvic or hip fracture; ²⁸ may also be seen on CT
Mediastinal widening on chest x-ray	Frequent finding in elderly patients related to rotation, thoracic deformity or dilated large vessels (ectatic aorta)
Metabolic and Clinical Indicators of Dehydration	
Inappropriately low urinary specific gravity	Age-associated decreased urinary concentrating ability
Decreased skin turgor	Normal age-related change due to loss of skin elastin and structural changes in collagen
Occult Renal Failure	
Normal serum creatinine	Due to decreased muscle mass with aging plus average 50% decline in creatinine clearance by age 70 years ²⁹
Miscellaneous Functions	
Orthostatic hypotension	Mild orthostasis may be due to deconditioning or venous insufficiency
Systolic blood pressure ≤ 120 (approx.)	Very high incidence of isolated systolic hypertension (ISH), often labile. ³⁰ “Normal” blood pressure may be misleading in a patient with known history of ISH or if clinical findings suggest hemodynamic change
Heart rate <100 (approx.)	Heart rate response to many stimuli often blunted due to conduction system disease, negative chronotropic medications, or blunted catecholamine response ³¹
Body temperature	Febrile response to infection may be blunted; ^{32,33} delirium and dementia reduce ability to cooperate with oral temperature measurement; if axillary temperature measured, should assume rectal temperature is two degrees higher

Tool 1-4. New York State Task Force on Life and the Law Draft Guidelines: Modified Exclusion Criteria for Ventilator Access

The New York State Task Force on Life and the Law and the New York State Workgroup on Ventilator Allocation in an Influenza Pandemic have issued draft guidelines for comment³⁴ providing the rationale and non-age-based guidelines for allocating ventilators when resources are limited . (visit: www.health.state.ny.us/diseases/communicable/influenza/pandemic/ventilators/docs/ventilator_guidance.pdf) The recommendations urge facilities to appoint triage officers, operating separately from the physician in charge of patients' care, to oversee ventilator allocation. When making decisions about allocation, the triage officers would use modified exclusion criteria for ventilator access (see below for further discussion of this document, [see Section 6, Ethical and Legal Issues, page 105](#)).

Tool 1-4. New York State Task Force on Life and the Law Draft Guidelines: Modified Exclusion Criteria for Ventilator Access*

- **Cardiac arrest:** Unwitnessed arrest, recurrent arrest, arrest unresponsive to standard measures, trauma-related arrest
- **Metastatic malignancy** with poor prognosis
- **Severe burn:** Body surface area >40%; severe inhalation injury
- **End-stage organ failure:**
 - Cardiac: New York Heart Association class III or IV ³⁹
 - Pulmonary: severe chronic lung disease with FEV₁<25% **
 - Hepatic: MELD score >20***
 - Renal: dialysis dependent
 - Neurologic: severe, irreversible neurologic event/condition with high expected mortality

* Sequential Organ Failure Assessment Tool (SOFA), using modified exclusion criteria developed by New York State Task Force on Life and the Law,³⁴ adapted from Ontario Health Plan for an Influenza Pandemic (OHPIP)⁴⁰

** Forced Expiratory Volume in one second, a measure of lung function

***Model of End-stage Liver Disease⁴¹

REFERENCES

1. Jarrett PG, Rockwood K, Carver D. Illness presentation in elderly patients. *Arch Intern Med.* 1995;155:1060-1064.
2. Lewis LM, Miller DK, Morley JE, et al. Unrecognized delirium in ED geriatric patients. *Am J Emerg Med.* 1995;13:142-145.
3. Hustey FM, Meldon SW. The prevalence and documentation of impaired mental status in elderly emergency department patients. *Ann Emerg Med.* 2002;39:248-253.
4. Hebert LE, Scherr PA, Beckett LA. Age-specific incidence of Alzheimer's disease in a community population. *JAMA.* 1995;273:1354-1359.
5. Dementia in nursing home. Alzheimer's Association. Alzheimer's Disease Facts and Figures, 2007. www.alz.org/national/documents/report_alzfactsfigures2007.pdf Accessed March 30, 2007
6. Minkler M, Fuller-Thomson E, Guralnik JM. Gradient of disability across the socioeconomic spectrum in the United States. *NEJM.* 2006;355:695-703.
7. Waterer GW, Kessler LA, Wunderink RG. Delayed administration of antibiotics and atypical presentation in community-acquired pneumonia. *Chest.* 2006; 130:11-15.
8. Canto JC, Fincher C, Kiefe CI, et al. Atypical presentations among Medicare beneficiaries with unstable angina pectoris. *Am J Cardiol.* 2002; 90:248-253.
9. Norman DC. Fever in the elderly. *Clin Infect Dis.* 2000;31:148-151
10. McGeer A, Campbell B, Emori TG, et al. Definitions of infection for surveillance in long-term care facilities. *Am J Infect Control.* 1991;19:1-7.
11. Berman P, Hogan DB, Fox RA. The atypical presentation of infection in old age. *Age Ageing.* 1987; 16:201-207.
12. Nagurney JT, Borczuk P, Thomas SH. Elderly patients with closed head trauma after a fall: Mechanisms and outcomes. *J Emerg Med.* 1998;16:709-713.
13. Nagurney JT, Borczuk P, Thomas SH. Elder patients with closed head trauma: a comparison with nonelder patients. *Acad Emerg Med.* 1998;5:678-684.
14. Wongsurawatt N, Davis BB, Morley JE. (geriatric grand rounds) Thermoregulatory failure in the elderly. *J Am Geriatric Soc.* 1990;38:899-906.
15. Association of Directors of Geriatric Academic Programs. Status of Geriatric Workforce Study. Documenting the Development of Geriatric Medicine. www.adgapstudy.uc.edu/Home.cfm Accessed March 30, 2009.

16. Gross J. Geriatrics lags in age of high-tech medicine. *New York Times*, October 18, 2006, A-1.
www.nytimes.com/2006/10/18/health/18aged.html?ex=1162616400&en=0cc7e89e7be08f53&ei=5070. Accessed March 30, 2009.
17. Bates DW, Cullen DJ, Laird N, et al. Incidence of adverse drug events and potential adverse drug events. Implications for prevention. ADE Prevention Study Group. *JAMA*. 1995;274:29-34.
18. Gurwitz JH, Field TS, Harrold LR, et al. Incidence and preventability of adverse drug events among older persons in the ambulatory setting. *JAMA*. 2003;289:1107-1116.
19. New York City Department of Health and Mental Hygiene. *Hospital Guidelines for Pediatrics during Disasters*. 3rd Ed.. New York, NY: November, 2008..
<http://home2.nyc.gov/html/doh/downloads/pdf/bhbp/hepp-peds-childrenindisasters-010709.pdf> Accessed March 30, 2009.
20. Jano E, Asparasu RR. Healthcare outcomes associated with Beers' Criteria: A systematic Review. *Ann Pharmacother*. 2007;41:438-447.
21. McCusker J, Bellavance F, Cardin S, et al. Screening for geriatric problems in the emergency department: Reliability and validity. Identification of Seniors at Risk (ISAR) Steering Committee. *Acad Emerg Med*. 1998;5:883–893.
22. Gerson LW, Rousseau EW, Hogan TM, et al. Multicenter study of case finding in elderly emergency department patients. *Acad Emerg Med*. 1995;2:729–734.
23. Miller DK, Lewis LM, Nork MJ et al. Controlled trial of a geriatric case-finding and liaison service in an emergency department. *J Am Geriatr Soc*. 1996;44:513–520.
24. MacKnight C, Jarrett PG, Rockwood K. Caregiver burdens and nonmedical hospital admissions [letter] *Arch Intern Med*. 1998;158: 542-543.
25. Baylor College of Medicine/American Medical Association. Recommendations for Best Practices in the Management of Elderly Disaster Victims, pp. 8-13.
<http://www.bcm.edu/pdf/bestpractices.pdf> Accessed March 30, 2009.
26. Cigolle CT, Langa KM, Kabeto MU, et al. Geriatric conditions and disability: The Health and Retirement Study. *Ann Intern Med*. 2007;147:156-164.
27. Hustey FM, Mion LC, Connor JT, et al. A brief risk stratification tool to predict functional decline in older adults discharged from emergency departments. *J Amer Geriatr Soc*. 2007;55:1269-1274.
28. Bogost GA, Lizerbram EK, Crues JV. MR imaging in evaluation of suspected hip fracture: frequency of unsuspected bone and soft-tissue injury. *Radiology*. 1995;197:263-

267.

29. Rowe J, Andres R, Robin J, et al. The effect of age on creatinine clearance in men: a cross-sectional and longitudinal study. *J Gerontol.* 1976;31:155-163.

30. Wilking SVB, Belanger A, Kannel WB, et al. Determinants of isolated systolic hypertension. *JAMA.* 1988;260:3451-3455.

31. Cheitlin MD, Zipes DP. Cardiovascular disease in the elderly. In: Braunwald E, Zipes DP, Libby P, eds. *Heart Disease: A Textbook of Cardiovascular Medicine*, 6th ed. Philadelphia, PA;Saunders:2001, pp 2019.

32. Castle SC, Norman DC, Yeh M, et al. Fever response in elderly nursing home residents: Are the older truly colder? *J Am Geriatric Soc.* 1991;39:853-857.

33. Trivalle, C, Doucet, J, Chassagne, P, et al. Differences in the signs and symptoms of hyperthyroidism in older and younger patients. *J Amer Geriatr Soc.* 1996; 44:50-53.

34. New York State Department of Health. Allocation of Ventilators in an Influenza Pandemic: Planning Document. Draft for Public Comment. March 15, 2007.
www.health.state.ny.us/diseases/communicable/influenza/pandemic/ventilators/docs/ventilator_guidance.pdf Accessed March 31, 2009.

35. New York City Department of Health and Mental Hygiene. Section 5: Health Care Planning and Emergency Response, Appendix 5E. Utilizing Volunteers During a Disaster. In: Pandemic Influenza Preparedness and Response Plan. New York, NY.
<http://home2.nyc.gov/html/doh/downloads/pdf/cd/cd-panflu-plan-05.pdf>

36. White DB, Curtis JR, Wolf LE, et al. Life support for patients without a surrogate decision maker: who decides? *Ann Intern Med.* 2007;147:34-40.

37. Palmer RM, Landefeld CS, Kresevic D, et al. A medical unit for the acute care of the elderly. *J Amer Geriatr Soc.* 1994;42:545-552.

38. Landefeld CS, Palmer RM, Kresevic DM, et al. A randomized trial of care in a hospital medical unit especially designed to improve the functional outcomes of acutely ill older patients. *NEJM.* 1995;332:1338-1344.

39. American Heart Association. Classification of Functional Capacity and Objective Assessment. Dallas, TX : AHA, 2009.
www.americanheart.org/presenter.jhtml?identifier=4569. Accessed April 2, 2009.

40. Ontario Health Plan for an Influenza Pandemic. 5th Ed. Ontario, Canada:2008.
www.health.gov.on.ca/english/providers/program/emu/pan_flu/ohpip2/plan_full.pdf
Accessed March 31, 2009.

41. United Network for Organ Sharing (UNOS). Model for end-stage liver disease

calculator. Richmond, VA: 2009.

www.unos.org/resources/meldPeldCalculator.asp Accessed March 31, 2009.

RESOURCES

ASSESSMENT TOOLS

Mini-Cog and Clock Drawing Test

Rapid dementia screening in multilingual elderly

www.hospitalmedicine.org/geriresource/toolbox/pdfs/clock_drawing_test.pdf

Confusion Assessment Method (CAM)

Rapid assessment of delirium in older patients

www.healthcare.uiowa.edu/igec/tools/cognitive/CAM.pdf

TEACHING TOOLS AND GUIDANCE MATERIALS

Geriatric Education for Emergency Medical Services

Resource for emergency medical service providers (case-based lectures, video, hands-on skill stations, lectures, courses, CDs and print material)

www.gemssite.com

Gerontological Society of America Expert Referral Service

Provides experts in many fields of aging (not intended for patient referrals).

www.geron.org/Resources/Expert%20Referral%20Service..

Telephone: 1-202-842-1275 extension 142.

University of Chicago: Curriculum for the Hospitalized Aging Medical Patient (CHAMP)

<http://champ.bsd.uchicago.edu/>

Designed to prepare non-geriatric-trained clinicians to care for elderly hospitalized patients.

Society for Academic Emergency Medicine: Emergency Care of the Elder Person Teaching Modules

www.saem.org/saemdn/Home/Communities/CommitteesandTaskForces/GeriatricTaskForce/InstructorsManual/tabid/890/Default.aspx

PowerPoint presentation and instructor's manuals on case-based topics such as functional decline, delirium, trauma, ischemic heart disease, and others.

For additional education and rapid teaching tools, [see Section 3, Clinical Care of Acutely Ill, Elderly Patients, page 42.](#)

SECTION 2. SOFT CARE AREA

PURPOSE

This Section provides guidance to hospitals, their emergency departments (EDs) and other relevant areas on dealing with patients deemed medically stable but unable to be discharged due to lack of housing or the unavailability of caregivers or services received at home. The material focuses specifically on frail, elderly people and other vulnerable adults who may be dependent on others for basic medical care and assistance with activities of daily living (ADL).

BACKGROUND

Hospitals as Safe Havens

In a health care crisis, fear of being infected, exposed, or displaced, can lead even healthy individuals to seek emergency medical care.¹ Vulnerable adults who cannot stay in their homes or who are dependent on others for care often present in large numbers. The patients, even if medically stable, may require shelter and care.

Physiologic Vulnerability

A significant number of older adults are cognitively impaired²⁻³ and unable to provide accurate demographic or medical information and/or the name or contact information of caregivers or family members. Chaos and an unfamiliar setting can heighten confusion and significantly complicate care for these individuals. Physical and cognitive disabilities can greatly diminish an individual's ability to function during a disaster, creating a need for supervised care in a holding area of the hospital; there, staff, with the help of healthy displaced persons, could monitor such patients for signs of new illness. Staff would need to be aware of potential clinical needs⁴⁻⁵ such as help using oxygen or taking medication, and basic needs, such as feeding toileting, and avoiding falls.

Psychosocial Vulnerability of Elderly New Yorkers

Frail elderly residents of New York City may be particularly vulnerable due to one or more of the following factors:

- Dependence upon others for care
- Physical abuse and neglect
- Financial abuse and theft
- Inability to speak English
- Poverty
- Living alone

Loss of Community Services in a Disaster

In a disaster, medically stable patients may not be able to return to their homes because their caregivers are ill or not able to be present.⁶⁻⁸ Those who need assistance accessing food, taking medications, and other basic and vital functions may end up presenting to hospitals in search of care or may be unable to go home after receiving care. In disasters such as a fire or hurricane, there may not be a home to return to.

Caring For and Reuniting Families

Families can become separated in a disaster causing repercussions for the broader community, including hospitals, where dependent elderly and other vulnerable patients are likely to end up. In an infectious disease epidemic, families may be separated because of quarantine.

The extreme difficulty in reuniting families has been well documented.⁹ On September 11, 2001, Manhattan hospitals were besieged by distraught family members seeking their missing loved ones. Many went to multiple hospitals, growing increasingly confused and anxious as they failed to locate relatives. Eventually, the function of dealing with families seeking missing members was centralized on a West Side pier and administered by the city.

During the Katrina disaster, many families from in and around New Orleans were evacuated—together or separately—to distant cities and states. In many cases, frail, older residents were left alone in the disaster area. Those who survived and were evacuated often became confused in their new setting.

Need for Alternate Care Sites

Nursing home beds in New York City are approximately 95% occupied¹⁰ and would be unable to accommodate a surge of people who require subacute, palliative or custodial care during a disaster. During an infectious disease epidemic, nursing homes may be reluctant to expose residents to incoming patients who are presumed but perhaps not certain to be uninfected. The lack of beds would force EDs and hospitals to care for individuals who cannot be safely discharged; therefore, alternatives to nursing homes or other traditional sites for people needing care will need to be identified.

Lessons Learned from Recent Disasters^{9,11-14}

Issues in dealing with the elderly in disasters include:

- Difficulty locating and tracking seniors and other vulnerable adults.
- Inadequacy of extant shelter options and difficulty gaining access for those in need.
- The need for geriatricians to attend to the medical requirements of frail elderly patients.
- The need to involve multidisciplinary professionals, who have training or experience in care of the frail elderly, early in the planning phase.
- The importance of cooperating with community-based and citywide agencies that have knowledge of seniors and their needs, including, but not limited to, senior centers, faith-based senior programs, adult protective services, the Department for the Aging and the Office of Emergency Management.
- The tendency of the frail elderly, who are vulnerable before a disaster, to become more vulnerable during and after such an event. Along with physical limitations, cognitive disorders can play a role in putting these patients at greater risk since chaotic circumstances and unfamiliar settings might heighten their confusion and significantly complicate their care.
- The need to address post-disaster, long-term needs; even those who do not require immediate medical care have needs, such as adequate housing, resumption of

services, and access to a Social Security check, health insurance, or other entitlements.

- The need to provide information and support to families seeking missing adults, especially their frail elderly loved ones.

PLANNING GUIDELINES

1. Identify Institutional Expertise in Community-Based Social Services and Discharge Planning

Social work, case management, family center and psychological or crisis counseling experts should be identified and included on the Emergency Preparedness Committee ([see Section 5, Mental Health Issues, page 86](#)).

2. Provide a Soft Care Area

A Soft Care Area is a secure place in the hospital staffed to treat medically stable, but frail elderly vulnerable adults, who cannot be safely discharged from the emergency department (ED) in a timely manner but who need psychosocial support and medical oversight ([see Tool 2-1, Establishing a Soft Care Area, page 33](#)). If the Soft Care Area cannot be established in the ED, a nearby location in the hospital or an unoccupied ward can be used. The Soft Care Area should have close links with the ED, the hospital pharmacy and a family support center.

Soft Care staff should be trained in geriatric care, the use of the Seniors without Families Triage (SWiFT) tool, (visit: www.dmphp.org/cgi/content/full/2/Supplement_1/S45 and [see Section 1, Tool 1-2, Seniors without Families Triage \(SWiFT\) Tool, page 23](#)) and, if possible, psychological assessment ([see Section 5, Mental Health Issues, page 86](#)).

3. Develop Methods for Identifying and Tracking Frail Elderly Individuals

Identify frail patients during triage so that their unique medical and psychosocial needs can be properly addressed. Identification of, and relationships with, appropriate community agencies should be established during the emergency planning process.

4. Encourage Primary Care Clinicians to Identify Vulnerable Elderly Patients before Disasters Occur

Clinicians, whether based at hospital clinics or community practices, should be reminded to continuously identify elderly, vulnerable patients and routinely assess them for risk factors during an emergency, and advise them and their caregivers on disaster preparedness methods.

5. Stock a Minimum 4-Day Supply of Commonly Used Outpatient Medications

Stock common medications for those who may not be able to return home because of disrupted services ([see Section 4, Medications, Tool 4-2, Geriatric Medication Guidelines for Commonly Encountered Medical Conditions in the Acute Care Setting, page 66](#)).

6. Work with City Agencies to Identify Alternative Care Sites for Patients Who

Need Subacute or Custodial Care

Planners should work with city agencies to identify facilities (such as nursing homes, clinics or other low-acuity patient care sites)¹⁵ available for patients who do not require acute care but who may require subacute or custodial care. Establish methods of inter-institutional communication and transport, and admission standards; in addition, obtain signed memoranda of understanding or contractual agreements in advance so immediate activation can occur.

7. Link to Community-based Senior Service Organizations

With the assistance of institutional social work or case management departments, hospitals should establish links to appropriate organizations and work with them to create coordinated disaster plans for vulnerable adults.

8. Provide Assistance for Adults Seeking Missing Adults

Disaster plans that include Family Information and Support Centers should provide areas within the centers for adults seeking missing adults¹⁶ to safeguard the mental health and psychosocial needs of families seeking to reunite.

TOOLS

Tools 2-1 and 2-2: Soft Care Area

The soft care area is designed to address the medical and psychosocial needs of frail elderly and other vulnerable adults who do not require hospitalization yet are not able to leave the hospital because of disrupted home care services, unavailable family or other caregivers, or other obstacles to safe discharge. See **Tool 2-1** below for details on requirements for the area, and **Tool 2-2** for information on triaging patients in Soft Care.

Tool 2-1. Establishing a Soft Care Area

Systems

- Identification and tracking methods
- Identifying psychosocial risk factors through public health screenings ([see Section 2, Tool 2-2, Psychosocial Triage in the Soft Care Area, page 35](#))
- Discharge planning
- Communication with and service by runners to the Family Information and Support Center
- Links with the ED and hospital pharmacy (by runner, if necessary)
- Links with community agencies

Physical Space

Designate an area before a disaster that can accommodate quarantine or decontamination, and provide:

- Communication links (phone, computers, and beepers) to other areas (Family Information and Support Center, hospital pharmacy) and to outside services

- A wheelchair-accessible seating area for vulnerable adults who may have to wait for discharge
- Seating for family or other caregivers who may be assisting patients
- Cots and bedding, as space allows
- Wheelchair-accessible restrooms
- Quiet areas for patients who may be agitated or upset

A storage area for walkers, canes, commodes, adult diapers and smaller necessities

- A medication storage area with medications most often used by elderly patients ([see Section 4, Medications, Tool 4-2, Geriatric Medication Guidelines for Commonly Encountered Medical Conditions in the Acute Care Setting, page 66](#))

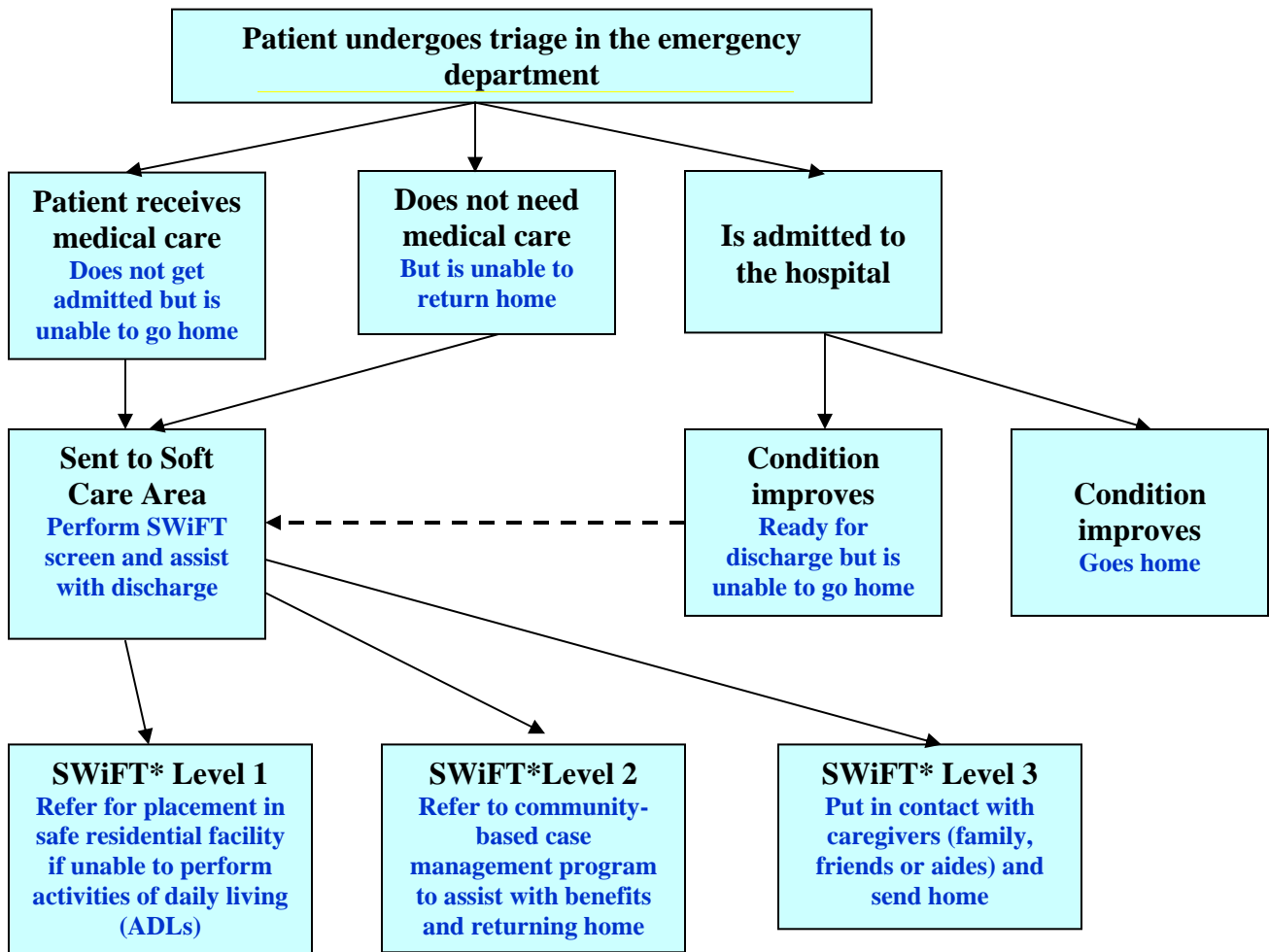
Telephones with volume controls that connect to translation services ¹⁷

Staffing

Appropriate staffing is vital to the success of the Center; be sure to assign:

- Security staff
- If possible, a multi-disciplinary team that includes one or more individuals with training or experience in geriatrics and/or crisis counseling, such as:
 - Social workers
 - Nurses, nurse practitioners and/or physicians
 - Pre-trained and credentialed assistants from professional or non-professional staff
 - Medical, nursing or social work students; community volunteers (see below)
- A coordinator who is a social work administrator or manager with experience or training in providing care and services for frail elderly and other vulnerable adults
- Prescreened volunteers, such as:
 - Individuals credentialed as hospital volunteers
 - Fieldwork students assigned to the ancillary services
 - Clergy from nearby religious institutions
 - Individuals from community organizations
- Staff with training in relevant geriatric issues is highly recommended. Use a team approach, for example, by pairing a more seasoned gerontologist with a less experienced person. Non-professionals or less experienced volunteers can be used as runners for rapidly transferring information within the hospital, or as companions that provide one-on-one support for confused or agitated patients.

Tool 2-2. Psychosocial Triage in the Soft Care Area



← - - - - Dashed arrow indicates the option to send a patient to the Soft Care

* The Seniors Without Families Triage (SWiFT) Tool,⁹ is designed to be used before or after a disaster event to rapidly determine a patient's ability to perform activities of daily living (ADLs), and thereby ensure triage to the appropriate level of care ([see Section 1, Tool 1-2, Seniors without Families Triage \(SWiFT\) Tool, page 23](#)). Ideally, SWiFT should be applied in the emergency department as soon as discharge is contemplated, either by trained ED staff or trained "runners" from Soft Care Area. If not, SWiFT should be applied in Soft Care Area.

Tool 2-3. Family Information and Support Center

Actively seeking information can help people regain a sense of control by reducing a sense of uncertainty inherent in traumatic events. People turning to an information center are inevitably distraught, so making essential information accessible at a Family Information and Support Center is a first step in enabling them to cope.

Tool 2-3. Creating a Family Information and Support Center

Use the following guidelines to establish a comprehensive Family Information and Support Center (FISC):

- Designate a hospital area for families to receive information and support during a disaster.*
- Create a distinct area within the FISC for adults seeking missing adults.
- Augment FISC staff with geriatrics-oriented personnel and/or trained volunteers (consider including peer volunteers, such as healthier seniors).
- Provide methods of communicating with non-English-speaking family members such as staff translators, multilingual volunteers or telephone translation services.
- Offer to conduct SWiFT screening of patients' spouses or partners who are elderly or appear to be vulnerable.
- Establish links with the Soft Care Area by phone, computers, and "runners," to facilitate family reunifications ([see Section 2, Tool 2-1, Establishing a Soft Care Area, page 33](#)).
- Enable Soft Care Area staff to seek out family members who are able to assist in caring for their relatives in the area. If there is more than one such family member or other caregiver, have them assist in rotation.

*See the Centers for Bioterrorism Preparedness Programs Pediatric Task Force's and the New York City Health Department's *Children in Disasters: Hospital Guidelines for Pediatric Preparedness*¹⁶ for a possible model; visit: <http://home2.nyc.gov/html/doh/downloads/pdf/bhpp/bhpp-hospital-pediatric-guidelines.pdf>

REFERENCES

1. CNNhealth.com, “Walking well” flood hospitals with – or without—flu symptoms, CNNhealth.com, May 2, 2009.
<http://www.cnn.com/2009/HEALTH/05/02/worried.well.hospitals/index.html>
2. Hebert LE, Scherr PA, Beckett LA. Age-specific incidence of Alzheimer’s disease in a community population. *JAMA*. 1995;273:1354-1359.
3. Alzheimer’s Association. Alzheimer’s Disease Facts and Figures, 2007.
www.alz.org/national/documents/Report_2007FactsAndFigures.pdf
Accessed December 23, 2007.
4. Minkler M, Fuller-Thomson E, Guralnik JM. Gradient of disability across the socioeconomic spectrum in the United States. *NEJM*. 2006;355:695-703.
5. MacKnight C, Jarrett PG, Rockwood K. Caregiver burdens and nonmedical hospital admissions [letter]. *Arch Inter Med* 1998;158:542-543.
6. Rodwin VC, Gusmano MK, eds. *Growing older in world cities*. Nashville, TN: Vanderbilt University Press;2006;pp 4-5.
7. Prezant DJ, Clair J, Belyaev S, et al. Effects of the August 2003 blackout on the New York City healthcare delivery system: a lesson for disaster preparedness. *Crit Care Med*. 2005;1: S96-S101.
8. Beatty ME, Phelps S, Rohner C, Weisfuse I. Blackout of 2003: Public health effects and emergency response. *Public Health Rep*.2006;121:36-44.
9. Baylor College of Medicine and the American Medical Association. Recommendations for Best Practices in the Management of Elderly Disaster Victim; p. 14.
www.bcm.edu/pdf/bestpractices.pdf Accessed December 10, 2008.
10. Commission on Health Care Facilities in the 21st Century. A plan to stabilize New York’s Health Care System: Final Report of the Commission on Health Care Facilities in the 21st Century. December 2006:p 51.
www.nyhealthcarecommission.org/docs/final/commissionfinalreport.pdf.
Accessed December 10, 2008.
11. O’Brien, N: International Longevity Center. Emergency Preparedness for Older People. Issue Brief, Jan.-Feb. 2003. www.ilcusa.org/_lib/pdf/epopib.pdf
12. Sartori K, Owusu S, eds. The City of New York Subcommittee on Senior Centers. Findings and recommendations regarding senior centers and emergency preparedness in New York City. Published May 28, 2007.
www.nyccouncil.info/pdf_files/reports/senior_centers.pdf Accessed December 10, 2008.

13. Bitondo Dyer, C. Caring for seniors in a national emergency: Can we do better? Testimony before U.S. Senate Special Committee on Aging, May 18, 2006. www.americangeriatrics.org/products/positionpapers/bitondo_dyer2006.pdf Accessed December 10, 2008.
14. Seessel, T. Ford Foundation Report: Responding to the 9/11 Terrorist Attacks: Lessons from Relief and Recovery in New York City, 2003. www.fordfound.org/pdfs/impact/responding_to_attacks.pdf Accessed December 10, 2008.
15. Cantrill S, Bonnett C, Hanfling D, et al. Alternative Care Sites. In: Phillips SJ, Knebel A, eds. *Mass Medical Care with Scarce Resources: A Community Planning Guide*. Prepared by Health Systems Research, Inc., an Altarum company, under contract No. 290-04-0010. AHRQ Publication No. 07-0001. Rockville, MD: Agency for Healthcare Research and Quality 2007. www.ahrq.gov/research/mce/mceguide.pdf Accessed December 10, 2008.
16. Centers for Bioterrorism Preparedness Program Pediatric Task Force/ New York City Department of Health and Mental Hygiene. Section 13: Family Information and Support In: *Hospital Guidelines for Pediatrics in Disasters*. 2nd ed. New York, NY: New York City Department of Health and Mental Hygiene; 2006. <http://home2.nyc.gov/html/doh/downloads/word/bhpp/bhpp-focus-ped-toolkit-13-family.doc> Accessed December 10, 2008.
17. Kelly N. The voice on the other end of the phone. *Health Affairs* 2008; 27:1701-1706. Available at: <http://imiaweb.org/uploads/pages/307.pdf> (last visited February 23, 2009).

RESOURCES

U.S. Department of Homeland Security

Ready America: People with Disabilities and Other Special Needs

Web site with advice for older adults and people with disabilities and other special needs, including how to develop an emergency kit.

<http://www.ready.gov/america/index.html>

<http://www.ready.gov/america/getakit/disabled.html>

New York City Department of Health and Mental Hygiene/ Consortium for Risk and Crisis Communication

Communicating in a Health Emergency: Crisis Communications Guide

Booklet for professionals and trainees with information on communicating with patients, patients' family members, fellow employees and the community during a disaster.

www.nyc.gov/html/doh/downloads/pdf/bt/comm-health-emergency-guide.pdf

Health Privacy Project

Myths and Facts about the HIPAA Privacy Rule

Facts and fallacies about federal rules governing communication between health professionals and families of vulnerable elderly.

www.healthprivacy.org/newsletter-url2306/newsletter-url_show.htm?doc_id=173459

Disability Preparedness Resource Center

A resource center with an array of helpful information on disaster preparedness for people with disabilities; also has general information for families and service providers of persons with disabilities.

www.disabilitypreparedness.gov/

NEW YORK CITY RESOURCES

New York City Department for the Aging/Office of Emergency Management Ready New York

Consumer online and print pamphlet on emergency preparedness. Available in

English: www.nyc.gov/html/dfta/downloads/pdf/seniors_disabilities_english.pdf

Spanish: www.nyc.gov/html/dfta/downloads/pdf/seniors_disabilities_spanish.pdf

Russian: www.nyc.gov/html/dfta/downloads/pdf/seniors_disabilities_russian.pdf

Chinese: www.nyc.gov/html/dfta/downloads/pdf/seniors_disabilities_chinese.pdf

For an audiotape of the information, call 311 (in New York City) or (212) 639-9675 (outside New York City)

<http://www.disabilitypreparedness.gov/>

New York City Office of Emergency Management (OEM)

City agency responsible for coordinating emergency response and recovery; it also provides public education and the Web site contains online resources and links.

Tel. (718) 422-4800

www.nyc.gov/html/oem/html/home/home.shtml

American Red Cross of Greater New York

Volunteer-led organization that provides relief to disaster victims and helps people prevent, prepare for, and respond to emergencies.

Tel: (877) 733-2767

www.nyredcross.org/

NYC Department of Health and Mental Hygiene Medical Reserve Corps

New York City's emergency preparedness group of credentialed and trained health professionals ready to respond to health emergencies.

Tel: (866) 692-3641

www.nyc.gov/html/doh/html/em/mrc.shtml

SENIOR AND COMMUNITY-BASED RESOURCES

New York City Department for the Aging (DFTA)

A resource for a broad range of programs in New York City related to seniors. The Website includes a 5-borough directory of senior services. DFTA can link a hospital to an appropriate partnering agency and provide information on DFTA services.

www.nyc.gov/html/dfta

Tel. (212) 639-9675

Interagency Councils on Aging

Organizations comprising both small community-based organizations serving seniors and larger DFTA-funded programs and agencies:

- Brooklyn Tel. (718) 686-1333
- Bronx Tel. (718) 410-1216
- Manhattan Tel. (212) 725-7775
- Queens Tel. (718) 268-5954
- Staten Island Tel. (212) 667-3162

Alzheimer's Association (New York City Chapter)

Educational and advocacy organization that assisting families of patients with dementia in gaining access to a wide range of services. Programs are useful for non-disaster related problems as well as for disaster preparedness.

Tel. (646) 744-2900, (800) 272 3900 (24-hour help line).

<http://www.alznyc.org>

Telephone: 1-646-744-2900

Alzheimer's Association Safe Return Program

This program is designed for people who wander and become lost so they can be reunited with family or other caregivers.

www.alznyc.org/prog&services/default.asp#safereturn

Alzheimer's Association National MedicAlert + Safe Return Program

This combined program also provides access to medical information

www.alz.org/we_can_help_medicalert_safereturn.asp

Catholic Charities, Archdiocese of New York

Offers assistance in finding services, especially in Manhattan, Staten Island, the Bronx, and nearby counties.

Tel. (212) 371-1000

www.catholiccharitiesny.org.

Catholic Charities, Diocese of Brooklyn

Tel. (718) 722-6008

www.ccbq.org/

Council for Senior Centers and Services of New York City

Resource for senior centers in all 5 boroughs provides assistance in obtaining legal services, money management, entitlements, and other senior issues.

Tel. (212) 398-6565

www.cscs-ny.org. (Accessed December 10, 2008)

Jewish Association for Services for the Aged

Provides many services to seniors and families in the five boroughs of New York City.

Tel. (212) 273-5272

www.jasa.org.

DOROT

Non-profit social service organization that provides services for seniors and caregivers

Tel. (212) 769-2850

<http://www.dorotusa.org>.

United Neighborhood Houses of New York

Grassroots network of 34 settlement houses and community-based programs.

Tel. (212) 967-0322

www.unhny.org

REUSABLE HEARING AIDS

Various models of pocket hearing aids can be purchased online from \$20 to more than \$200 and can be kept in the hospital ward or office. These products consist of a pocket size microphone connected to earphones to be used while interviewing or examining a severely hearing impaired patient who does not have a hearing aid.

SECTION 3. CLINICAL CARE OF ACUTELY ILL, ELDERLY PATIENTS

PURPOSE

This section provides guidance for clinicians, physicians and other health care professionals on caring for very old or frail, elderly patients in the emergency department (ED), acute wards or other areas of the hospital during a disaster

BACKGROUND

Diversity and Elderly Individuals

The geriatric population is physiologically diverse. Robust older adults, especially the “young-old” (those aged 65 to 74 years), can generally be managed in the same way as middle-aged adults. However, the likelihood that a person will have cognitive and physical disabilities¹⁻² or overt or clinical comorbidities increases steadily with age.

Although a precise definition is elusive,³⁻⁴ the term “frail elderly” is used in this manual to refer to individuals with one or more characteristics that increase the risk of morbidity or functional decline when exposed to a stressor, including hospitalization.⁵⁻⁷

Special Elements of Geriatric Medicine in the Acute Care Setting

There are important considerations when caring for elderly patients with acute illnesses; clinicians should be aware of the following:

- Co-existing conditions and functional impairments make diagnosis and management more complicated.
- Diseases often present atypically in elderly people,⁸⁻¹⁰ making diagnosis challenging ([see Section 3, Tool 3-7, Acute Illnesses that May Have Altered Presentations in the Elderly, page 50](#)).
- The risk of adverse effects from prescription and non-prescription medications increases steadily after 65 years of age¹¹ ([see Section 4, Medications: Prescribing and Dispensing, page 64](#)).
- Hospitalization alone is a major risk factor for functional decline and medical morbidity.⁵

PLANNING GUIDELINES

Basic guidelines for preparing to care for elderly individuals during a disaster include:

1. Identify Staff with Geriatric Expertise at the Facility

Identify individuals who have a background in geriatric care, such as:

Geriatric specialists as planners and staff leaders. Identify staff leaders who are

experienced in, and knowledgeable about, geriatric clinical care to:

- Serve on the Emergency Preparedness Committee (representation on the committee should include at least one professional from the social services, such as a social worker or nurse case manager)
- Provide staff education and oversee geriatric care delivery during a disaster

Ideally, a clinical staff leader should be an experienced physician holding a Certificate of Added Qualifications (CAQ) in Geriatrics, and/or an advanced practice nurse with training in geriatrics (a gerontologic nurse practitioner (GNP) or clinical nurse specialist), and experience in medical management of acutely or chronically ill elderly patients. Also include:

Other clinicians with geriatric training or experience. These individuals should be identified by department heads to provide ongoing or consultative clinical care to frail, elderly patients in appropriate hospital settings. Geriatric fellows in training may be suitable.

External consultants. For institutions with limited geriatric expertise, external consultants are available who can assist in training or policy development ([see Section 3, Resources, Gerontological Society of America, page 62](#)).

2. Determine the Location and Type of Geriatric Care in the Facility

Assess the individual facility and provide the following services if possible:

Geriatric care area. This area should, if possible, be staffed by an onsite, multi-disciplinary care team with geriatric expertise. An ideal site would be an acute care for the elderly (ACE) unit¹²⁻¹³ or bed cluster.

Multi-disciplinary care. Physicians, nurses, social workers and other health professionals should collaborate to develop multi-disciplinary short- and long-term goals for frail, elderly patients. A team leader should be appointed who has the appropriate skills or experience in geriatric care and should involve relevant members of the team, as well as volunteers and family or caregivers providing care.¹⁴

Geriatric consultation service. For hospitals that do not have a dedicated geriatric inpatient unit or bed cluster, a roving geriatric consultant or team (an ACE unit without walls) should be developed to provide consultative or ongoing care in appropriate areas of the hospital, including emergency department, acute wards, and soft care area ([see Section 2, Soft Care Area, page 30](#)) Guidance on when to obtain geriatric medicine consultation is given in **Tool 3-1** below.

Tool 3-1. When to Obtain a Geriatric Medicine Consultation

1. Patient is 80 years of age or older **OR**
2. Patient is 65+ years of age with one or more of the following Geriatric Triggers:
 - Dementia plus one or more comorbidity
 - Delirium
 - Risky medication regimen such as:**
 - Anticoagulant
 - Sedating medication
 - Anticholinergic
 - Multiple medications
 - Agitation
 - Urinary retention or indwelling catheter
 - Tendency to fall
 - Mechanical restraints
 - Difficulty walking a short distance because of weakness, impaired gait or dyspnea
 - Significant feeding problems
 - Not eating when fed
 - Requiring assistance with feeding
 - Low vision or impaired hearing
 - In a patient who lacks the capacity to decide, making determinations about life-sustaining treatment, such as tube feeding

*High-risk characteristics that increase the risk of morbidity or functional decline⁵⁻⁷

**[See Section 4, Medications, Tool 4-7, Medication Adverse Effects in Elderly Patients with Specific Conditions, page 81](#)

3. Provide Training in Basic Geriatric Skills Using Simple Educational Tools.

- **Basic Geriatric Functional Assessment.** Non-geriatric-trained clinicians should receive training in basic geriatric assessment skills that can be applied in a disaster ([see Section 3, Tools 3-2 and 3-3, pages 45-46](#)).
- **Clinical Geriatric Care.** Staff leaders can use tools for pre-disaster or on-the-spot clinician training for clinicians and other staff working in the emergency department, acute care wards or the Soft Care Area ([see Section 3, Tools 3-4 to 3-11, pages 47-58](#)).

TOOLS FOR ASSESSMENT OF GERIATRIC FUNCTION

Tool 3-2. Assessment of Geriatric Function

Geriatric assessment alerts clinicians to the vulnerabilities of a particular patient. Numerous tools exist to assess patient function, many of which apply a numerical score. In a disaster, geriatric assessment can prevent misdiagnosis and reduce morbidity, but must be performed rapidly. This tool summarizes key elements of function that can be assessed individually and rapidly by observing the patient in the clinical setting, and requires no scoring or specialized training.

Tool 3-2. Geriatric Assessment

I. Rapid Basic Assessment

Determine how well the patient can function independently in a hospital room, including following commands, feeding, calling for assistance, toileting, and other functions.

II. Specific Functional Assessment

- Baseline Function
 - Interview patient or a reliable caregiver (e.g., health professional, family member, neighbor or home attendant) who is most familiar with the patient's functioning to establish recent baseline function and use of assistive devices, such as eyeglasses, hearing aids, dentures or a walker.
- Cognitive function—determine if the patient:
 - Knows he/she is in the hospital and why
 - Can name year and month
 - Recalls 3 of 3 named objects after 2 minutes (e.g., “house,” “skirt,” “rain”).
 - Can recite months in reverse order (“December,” “November,” “October,” etc.)
 - Identifies or names family members correctly and gives their approximate ages
 - Can discuss current events (e.g., can name presidential candidates or discuss issues in presidential campaign or activity of celebrity)
- Physical and executive function—observe and note whether patient needs a cane, walker, other device or personal assistance to:
 - Walk
 - Walk to bathroom
 - Use a bedpan or urinal
 - Change position in bed or wheelchair
 - Transfer from bed to chair
 - Reach and use telephone
 - Reach and use nurse call button
 - Open containers on tray and feed self
 - Read normal-size print (inquire whether patient has eyeglasses; provide magnifier or loan personal reading glasses if patient's glasses are not accessible)
 - Hear and respond to information in his/her own language (inquire whether patient

uses hearing aid; allow patient to use stethoscope as microphone, or provide “pocket talker” device if necessary) (see below: Tools, Reusable Hearing Aids).

- Follow instructions

Adjust oxygen mask or nasal cannula

Tool 3-3: Activities of Daily Living

Basic Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL) are important terms used to rapidly describe how well a patient functions (e.g. “He is independent in ADLs;” “She is having some trouble with her IADLs”). Many physical, medical, and cognitive disorders can impair ADLs and IADLs. While diagnosing or treating the underlying disorder, it is very important not to lose sight of the **function** that is impaired.

Tool 3-3. Activities of Daily Living and Instrumental Activities of Daily Living*

Activities of Daily Living (ADL) include the most basic functions::

- Bathing
- Grooming
- Toileting
- Transferring
- Feeding
- Walking

Instrumental Activities of Daily Living (IADL) include more sophisticated functions:

- Using the telephone
- Shopping
- Preparing food
- Housekeeping
- Doing laundry
- Handling finances
- Using transportation

* Schema widely used to describe a patient’s ability to function, sometimes scored.¹⁵ Also can be utilized as a rapid, unscored checklist of patient’s observed or reported function.

RAPID EDUCATIONAL TOOLS FOR CLINICAL GERIATRIC CARE

Tool 3-4. Risk Factors for Falls in Older Adults

Falling is an extremely common problem in older adults, and when it occurs in the hospital it contributes significantly to morbidity. This tool highlights important risk factors which may be preventable or modifiable.

Tool 3-4. Risk Factors for Falls in Older Adults*

- **Medications**
 - Benzodiazepines
 - Other hypnotic agents
 - Antipsychotics
 - Antidepressants (especially tricyclics)
 - Antiarrhythmics
- **Gait Abnormalities**
- **Dementia**
- **Over treatment of hypertension** (including recent “normalization” of blood pressure)
- **Orthostatic hypotension**
- **Accidental overdosing of cardiovascular or sedating medications** (including double dosing)
- **History of falling, syncope, or cardiac arrhythmia**
- **Visual impairment**
- **Use of bi- or multi-focal eyeglasses when walking**
- **Inability to hear nearby hazards**
- **Known use of an assistive device** (such as cane or walker)
- **Muscle weakness** (including pharmacologically-induced)
- **Hazards** (such as steps, objects on the floor, bedrails, poor lighting)

*For further reading, see Tinetti ME. Preventing falls in older persons. *NEJM* 2003; 348:42-49⁷ and American Geriatrics Society, British Geriatrics Society, and American Academy of Orthopaedic Surgeons Panel on Falls Prevention: Guideline for the prevention of falls in older persons. *J Amer Geriatr Soc* 2001;49:664-72.¹⁶

Tool 3-5. Diagnosing and Managing Agitation in Hospitalized Patients who have Dementia or Delirium

Delirium is a very important, potentially reversible cause of agitation, and must be distinguished from dementia. Dementia patients are at heightened risk of developing delirium; hence, dementia and delirium frequently coexist, and either may produce agitation.

Tool 3-5. Diagnosing and Managing Agitation in Hospitalized Patients who have Dementia or Delirium

I. Causes of Agitation

- Delirium (see paragraph II below for diagnostic features and rapid screening method)
- Restraints
- Intrusive devices
- Pain, dyspnea, or other physical symptoms
- Unfamiliar environment
- Someone patient doesn't recognize tries to feed, dress or wash patient
- Fecal impaction
- Urinary retention ([see Section 3, Tool 3-6, page 49](#) for reversible causes)
- Need for repositioning
- Need to get out of bed to urinate
- Sundown Syndrome¹⁷

II. Diagnostic Features of Delirium*

- Disturbance of consciousness (i.e., reduced clarity of awareness of the environment) with reduced ability to focus, sustain, or shift attention
- A change in cognition (such as memory deficit, disorientation, language disturbance) or the development of a perceptual disturbance that is not better accounted for by a preexisting, established, or evolving dementia
- The disturbance develops over a short period of time (usually hours to days) and tends to fluctuate during the course of the day.
- There is evidence from history, physical examination, or laboratory findings that the delirium is caused by the direct physiological consequences of one or more medical conditions, e.g., medical condition, medication side effect, substance (including prescription medication) intoxication or withdrawal.

Note: Delirium may be superimposed on underlying chronic dementia.

* Adapted from: American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR)*, 4th ed, with permission.¹⁸

Rapid Screen for Delirium:

Confusing Assessment Method (CAM): Visit <http://www.healthcare.uiowa.edu/igec/tools/cognitive/CAM.pdf>

III. Managing Agitation in Patients with Dementia or Delirium

- Seek and address underlying cause of agitation
- Avoid using intrusive devices, such as bladder catheters, nasogastric tubes, etc., if possible
- Avoid using mechanical restraints, if possible
- Camouflage devices such as intravenous lines by covering securely with gauze or by using other methods

- Utilize interpersonal methods (reassurance, distraction, and conversation by family, friend, or volunteer) whenever possible
- When managing pharmacologically, give cautious “geriatric” doses of atypical antipsychotics, trazodone, or haloperidol ([see Section 5, Tool 5-6, Appropriate Dosing of Common Psychiatric Medications for Frail Elderly, page 94](#))
- Avoid benzodiazepines, except if indicated in specific withdrawal syndromes (alcohol, benzodiazepines), or if antipsychotic medications are contraindicated

Tool 3-6. Reversible Causes of Urinary Retention

- Fecal impaction
- Bed-bound state in patient with benign prostatic hyperplasia (BPH)
- Medications*
 - Sedating “first-generation” antihistamines
 - Tricyclic antidepressants
 - Opioids
 - Gabapentin
 - Oxybutynin (Ditropan®)
 - Tolterodine (Detrol®)
 - Other anticholinergics
 - Calcium channel blockers (e.g., verapamil)

* **For a complete list,** [see Section 4, Tool 4-5, Drugs That May Cause Urinary Retention, Section 4, Medications, Tool 4-5, page 80.](#)

Tool 3-7. Altered Presentations in the Elderly

Although presentations may be “typical” in older adults, presenting in a textbook fashion, acute illness very often presents **atypically** in the elderly, especially those who are frail. It is important to become familiar with and consider these “atypical” presentations, in order to avoid misdiagnosis.

Tool 3-7. Acute Illnesses that May Have Altered Presentations in the Elderly	
Condition	Altered Presentation
Pneumonia, other infections, fever, adverse drug event, dehydration with normal sodium and blood urea nitrogen (BUN)	Acute change in mental status, especially confusion, lethargy, stupor, or coma
Unstable angina	Dyspnea, dyspepsia, back pain
Any medical condition causing weakness or drop in baseline blood pressure (myocardial infarction; over treatment of blood pressure; adverse drug event, etc.)	Weakness, dizziness, falls
Bowel infarction or other abdominal infections and catastrophes	Muted abdominal signs and symptoms
Fecal impaction	Paradoxical Diarrhea
Infection	Absent or muted febrile response
Head trauma, often apparently minor trauma, such as falling	Muted or delayed signs and symptoms
Thyrotoxicosis	Goiter often absent or substernal, tachycardia may be absent, constipation common
* See also Section 1, Tool 1-3, Findings that May be Misleading in Elderly Patients, page 24	

Tool 3-8. Inventory and Clinical Guidelines for Frail, Elderly Inpatient Care, According to Vulnerability

Patient Vulnerability	Equipment/Inventory	Guidance
Gait disorders, tendency to fall, immobility	<ul style="list-style-type: none"> • Foldable walkers • Wheelchairs • Chair recliners • Bedside commodes 	<ul style="list-style-type: none"> • Recliners are useful for family or other non-staff caregiver assisting the patient at bedside • Address causes of falling (see Section 3, Tool 3-4, Risk Factors for Falling in Older Adults, page 47 and Resources, pages 60-63)
Cognitive impairment	<ul style="list-style-type: none"> • Chair recliners 	<ul style="list-style-type: none"> • Recliners for patients who attempt to get up without assistance (instead of wrist or vest restraints) • Place patient near nursing station or in another visible position • Camouflage I.V. sites and other treatments to avoid the need for restraints • Avoid sedating with benzodiazepines • Observe cautionary guidelines for any centrally action medication (see Section 4, Tool 4-4. Drugs That May Cause Mental Status Changes in Elderly Individuals, page 79 and Section 7, Tool 7-6, Age-adjusted Dosing for Opioid Treatment of Acute Pain, page 130)
Susceptibility to delirium	<ul style="list-style-type: none"> • Chair recliners • Non-sedating low-dose forms of atypical antipsychotics or haloperidol 	<ul style="list-style-type: none"> • Rule out underlying cause (most often infection, dehydration, or medication) • Avoid inappropriate medications and excessive sedation (see links provided in box above: Cognitive Impairment)
Agitation	<ul style="list-style-type: none"> • Gauze wraps and pads 	<ul style="list-style-type: none"> • Use these materials to camouflage I.V. tubing and other intrusive devices • Seek underlying cause (see Section 3, Tool 3-5, Diagnosing and Managing Agitation in Hospitalized Patients who have Dementia or Delirium, page 48) • Apply interpersonal methods whenever possible (see Section 3, Tool 3-5, Diagnosing and Managing Agitation in Hospitalized Patients who have Dementia or Delirium, page 48)

Tool 3-8. Cont'd

Patient Vulnerability	Equipment/Inventory	Guidance
Impaired hearing	<ul style="list-style-type: none"> • Reusable, on-the-body hearing aid with disposable earphone covers (inexpensive varieties are commercially available); keep at least one on hand in inpatient units and the emergency department • Replacement hearing aid batteries for patient-owned devices • Telephones with volume enhancement equipped if telephone translation services are available 	<ul style="list-style-type: none"> • Ascertain the patient's ability to hear spoken words (difficulty hearing may be misdiagnosed as dementia) • Face the patient and speak loudly, using low frequency, articulate speech • Speak directly into the patient's ear when necessary • If a hearing aid is unavailable, place clinician's stethoscope in patient's ears and speak into the bell or diaphragm • Use translation services if needed¹⁹ • Implement measures to prevent loss of hearing aids, such as storage in an attached fanny pack (see Section 5, Tool 5-7, Pre-Disaster Planning: The GeriGoBag, page 97)
Impaired vision	<ul style="list-style-type: none"> • Adequate lighting • Magnifying eyeglasses (reading glasses) • Eye drops for glaucoma • Eyeglass chain or string to prevent loss 	<ul style="list-style-type: none"> • Confirm that the patient is visually impaired and inform staff. • If reading glasses or magnifier unavailable, offer clinician's reading glasses to patient to complete brief tasks • Have volunteers to read to the patient or assist with visual tasks • Take measures to prevent loss of eyeglasses, such as an eyeglass chain, or by placing glasses into an attached fanny pack (see Section 5, Tool 5-7, Pre-Disaster Planning: The GeriGoBag, page 97)

Tool 3-8. Cont'd		
Patient Vulnerability	Equipment/Inventory	Guidance
Poor nutrition	<ul style="list-style-type: none"> Enteral nutritional formulas (e.g., Ensure®) or less costly alternatives (e.g., Instant Breakfast®) Protein powder to mix with regular food (e.g., Beneprotein®) Enteral feeds (for patients receiving non-oral feeding) (See Section 3, Tool 3-10, Formulas that Provide Total Nutrition for Oral or Enteral Tube Feeding, page 57) 	<ul style="list-style-type: none"> Permit family, volunteers and other non-staff to assist with meal tray or feeding Loosen dietary restrictions, if possible Recognize that a balanced diet of regular food and beverages may be equal or preferable to commercial supplements <p>Note: Hypoalbuminemia may not respond to nutritional supplements if it is attributable to additional factors, such as chronic infection or inflammatory condition</p>
Neurogenic dysphagia (difficulty ingesting thin liquids) Oral dyspraxia (difficulty eating when fed)	<ul style="list-style-type: none"> Fluid thickener (e.g., Thick-it®) Applesauce or other packaged food for crushed pills 	<ul style="list-style-type: none"> Serve pureed foods Mix thin liquids with thickener Administer frequent, small feedings Provide favorite foods from home, in the appropriate consistency
Oral apraxia (inability to ingest sufficient food and fluids when fed)	<ul style="list-style-type: none"> Small-bore nasogastric feeding tubes 	<ul style="list-style-type: none"> Nasogastric tubes for temporary use only; gastrostomy if consistent with goals of patient In advanced dementia and other terminal illnesses, consider a palliative care approach (spoon feeding as patient tolerates; see Section 7, Palliative Care, page 119)
Hydration	<ul style="list-style-type: none"> Flexible drinking straws Intravenous fluids and tubing 	<ul style="list-style-type: none"> Permit volunteers to assist the patient with drinking Monitor hydration status clinically (observe amount of fluid intake, color of urine or wetness of pads and incontinence garments and moisture of mucous membranes; note that skin turgor is an unreliable sign in the elderly) Avoid indwelling catheters for fluid monitoring, if possible

Tool 3-8. Cont'd		
Patient Vulnerability	Equipment/Inventory	Guidance
Urinary incontinence	<ul style="list-style-type: none"> • Bedside commodes • Bedpans • Urinals • Incontinence pads • Adult diapers • Condom catheters 	<ul style="list-style-type: none"> • Avoid in-dwelling catheters to minimize catheter- related infection (this will also minimize unnecessary equipment use) • Recognize pseudoincontinence (the inability to get to the toilet) • Permit family and volunteers to assist in toileting patient • Simple voiding is also preferable to the use of condom catheter because of infection risk • Scheduled toileting
Urinary retention	<ul style="list-style-type: none"> • Alpha blockers • Straight catheters • Foley catheters 	<ul style="list-style-type: none"> • Seek reversible causes (see Section 3, Tool 3-6, Reversible Causes of Urinary Retention, page 49) • Assist male patients in standing to urinate
Fecal incontinence	<ul style="list-style-type: none"> • Incontinence pads • Adult diapers • Bedside commode 	<ul style="list-style-type: none"> • Identify cause of diarrhea (consider paradoxical presentation of fecal impaction)
Fecal impaction	<ul style="list-style-type: none"> • Laxatives • Stool softeners • Enemas <p>Avoid constipating medications (see Section 4, Tool 4-6, Drugs that Commonly Cause Constipation, page 80)</p>	<ul style="list-style-type: none"> • Avoid bulk-forming laxatives such as psyllium (Metamucil®) for immobile patients • Permit family and others to assist in reporting patient's bowel function • Ensure patient hydration and mobility, if possible • Scheduled, seated toileting, if possible • Note: Impaction may present with diarrhea
Susceptibility to abnormalities in thermoregulation: hypothermia	<ul style="list-style-type: none"> • Warm socks • Blankets 	<ul style="list-style-type: none"> • Rectal or axillary temperature measurements if patient cannot cooperate for adequate oral measurement • Document method of temperature measurement (rectal higher and axillary lower than oral temp) • Normal temperature does not rule out infection

Tool 3-8. Cont'd

Patient Vulnerability	Equipment/Inventory	Guidance
Susceptibility to pressure and need for wound care ²⁰⁻²¹ (see Section 3, Resources, pages 60-63)	<ul style="list-style-type: none"> • Pillows and bed linens • Towels • Incontinence pads and adult diapers • Bandages and dressings • Sterile water or saline • Iodine (Betadyne®) • Enzymatic debriding agents • Cushioned heel pads 	<ul style="list-style-type: none"> • Priorities: Remove pressure, keep dry, avoid friction • Bony prominences with little subcutaneous fat are the most susceptible • Permit family and other non-staff to assist in turning, repositioning or toileting patient • Roll bed linens or towels to aid positioning; insert under ankle to elevate heel and prevent heel ulcers • Avoid indwelling catheter (does not prevent fecal soiling or moisture from perspiration; causes urinary infection) <p>Note: Special mattresses do not make enough difference to justify the extra inventory</p>
Deconditioning (deterioration in physical function due to immobility) ⁵	<ul style="list-style-type: none"> • Hardback chairs • Recliner bedside chairs 	<ul style="list-style-type: none"> • Teach patient, family, other caregivers or volunteers to perform simple in-bed or in-chair exercises • Permit family and other caregivers, or volunteers, to assist patient in transferring, standing, walking, and in-bed or in-chair exercise • Recliner chairs for use by visiting staff caregivers who may need to provide around-the-clock assistance
Susceptibility to adverse drug events	For detailed guidelines, see Section 4, Medications: Prescribing and Dispensing, page 64	Use non-pharmacological measures whenever possible and appropriate

Tools 3-9 through 3-11. Tube Feeding

Short term feeding by tube is often indicated in patients who cannot take nutrition and fluids by mouth and who are expected to recover, but long term use in patients with advanced dementia and other terminal illnesses is controversial. Tool 3-9 provides clinical guidance on using feeding tubes in the acute care setting; 3-10 describes different types of basic feeds available for oral use or for enteral tube feeding; 3-11 provides practical alternatives when long term tube feeding is not consistent with the patient's goals of care.

Tool 3-9. Enteral Nutrition and Hydration by Tube

Indications

- **Temporary** provision of comprehensive or supplemental nutrients in patients unable to take solids and liquids adequately by mouth (not intended to replace oral feeding in patients who can be fed)
- Continued provision of oral nutrients and fluids in patients receiving long-term tube feeding, unless contraindicated or refused
- Rarely, for administration of vital medication that cannot be administered parenterally and for which alternative medication is unavailable (e.g., carbidopa-levodopa in patients receiving and requiring this medication for Parkinson's disease)

Formula

- Isotonic, unless clinical condition dictates otherwise ([see Section 3, Tool 3-10, Formulas that Provide Total Nutrition for Oral or Enteral Tube Feeding, page 57](#))

Rate

- Initiate at 25-30 cc per hour by continuous drip over 18 hours
- Increase tube feeding rate by increments of 20 cc per hour approximately every eight hours until calorie goal is reached.
- Rate may be increased more gradually in patients who have eaten minimally for prolonged periods to avoid refeeding syndrome
- During titration, ensure adequate hydration with supplemental intravenous fluid , if indicated

Method

- Administer continuous feed by gravity or by pump
- Keep stomach empty for at least six of every 24 hours (ideally during night sleep) to reduce aspiration risk and to facilitate repositioning and return of appetite; check gastric residuals periodically
- Intermittent feeds by drip may be given if continuous feeding is impractical; avoid rapid "bolus" administration
- Keep head of bed elevated and reposition patient during feeding
- Flush tube periodically to maintain patency while avoiding excessive free water flushes because of risk of hyponatremia in susceptible patients
- Nasogastric tubes should be small bore to maximize comfort

Percutaneous endoscopic gastrostomy (PEG) should generally be employed **only if** long- term feeding is expected; in these circumstances, PEG is preferred over a nasogastric tube, which is more likely to

become dislodged and lead to restraint use

Caveat: Tube feeding in patients with end-stage dementia* and other terminal illnesses

- Exhaust alternatives before considering tube feeding (see Tool 3-11 below, Alternatives to Tube Feeding)
- Ascertain patient's wishes before instituting tube feeding (see Section 6. Ethical and Legal Issues)

*See Section 7, Tool 7-3, Dementia Stage and Failure to Eat, page 127

Tool 3-10. Formulas that Provide Total Nutrition for Oral or Enteral Tube Feeding*

Type	Example	Indication	Comments
Flavored	Carnation Instant Breakfast® (powder)	Supplemental oral feeding, if convenience or swallowing problems require	Less expensive than most commercial liquid preparations; it is intended to be mixed with milk
	Ensure® (liquid)	Supplemental oral feeding, if convenience or swallowing problems require	Canned supplements are more expensive but convenient and generally lactose and gluten free; certain brands are available as pudding
	Blenderized ("home made")	Oral or enteral feeding	Reduce risk of spoilage by refrigerating until use
Isotonic** (about 1 cal/ml)	Osmolite® Nutren®	Default choice for tube feeding	Not flavored, therefore generally not appropriate for oral feeding
Fiber-added	Many brands, with variable amounts of fiber	Designed to reduce diarrhea, but evidence of efficacy is conflicting	Standard fiber-containing formulas contain modest amounts; in general, excessive fiber is not recommended for immobilized patients
Calorie-dense (2 cal/ml)	Osmolite® HN Nutren® 2.0 TwoCal® HN	Water restriction (e.g., SIADH); increased nitrogen needs	Hypertonic to gut; may increase risk of diarrhea
Protein powder	Beneprotein®	Mix with oral or enteral feed if increased protein is indicated	Low serum albumin alone is not a specific indication for tube feeding or protein supplementation

*For further reading, see Malone A. *Enteral formula selection: A review of selected product categories. Practical Gastroenterology* (available at: www.healthsystem.virginia.edu/internet/digestive-health/nutritionarticles/malonearticle.pdf), a comprehensive reference, containing detailed information on specialized feeding formulations, with evidence for and against certain claims; also provides recipes for "home-made" blenderized feed²²

**** Tonicity approximating that of normal body fluids, avoiding net secretion of water into the gut and theoretically reducing risk of diarrhea; low in sodium**

Tool 3-11. Alternatives to Long-Term Tube-Feeding*: Helping to avoid tube-feeding when it is not necessary or when patient refuses

Approach to patients who need assistance with eating and drinking

- Assist the patient in reaching the food tray, open containers and feed self.
- Ascertain patient's baseline feeding status.
- Provide frequent, small feedings with a spoon.
- Determine food preferences and permit others to bring favorite foods from home.
- Add condiments to improve taste.
- For patients having difficulty swallowing liquids, provide foods with "antidysphagia" consistency (thick puree) and add commercially available thickener (e.g., Thick-it®) to liquids.
- Provide intravenous fluids during delays in recovery of feeding after acute illness. Expect five to 10 days for full return to baseline eating in frail patient.
- Supplement tube feeds with oral feeds, as tolerated.
- Use family or trained volunteers to assist in feeding.
- Obtain information about patient's wishes regarding long-term tube-feeding, if possible, and abide by these wishes as legally required ([see Section 6, Ethical and Legal Issues, page 105](#)).
- Inform patients or their surrogate decision- makers about risks and benefits of feeding tubes.²³⁻²⁴

Tube-feeding is not generally indicated in the following conditions (evidence of benefit lacking)²³⁻²⁵

- Pneumonia, including recurrent sub-clinical aspiration pneumonia
- Pressure ulcer
- Low serum albumin
- Swallowing evaluation that indicates aspiration risk
- Prevention of painful death from failure to eat and drink

*Adapted from: Ahronheim JC. Artificial nutrition and hydration in the terminally ill patient. *Clin Geriatr Med*. 1996 May;12(2):379-391.²⁴

REFERENCES

1. Cigolle CT, Langa KM, Kabeto MU, et al. Geriatric conditions and disability: The Health and Retirement Study. *Ann Intern Med.* 2007;147:156-164.
2. Minkler M, Fuller-Thomson E, Guralnik JM. Gradient of disability across the socioeconomic spectrum in the United States. *NEJM.* 2006;355:695-703.
3. Ahmed N, Mandel R, Fain MJ. Frailty: an emerging geriatric syndrome. *Amer J Med.* 2007;120:748-753.
4. Whitson HE, Purser JL, Cohen HJ. Frailty thy name is...phrailty? *J Gerontol A: Biol Sci Med Sci.* 2007;62:728-730.
5. Creditor MC. Hazards of hospitalization of the elderly. *Ann Intern Med.* 1993;118:219-223.
6. Hustey FM, Mion LC, Connor JT et al. A brief risk stratification tool to predict functional decline in older adults discharged from emergency departments. *JAGS.* 2007;55:1269-1274.
7. Tinetti ME. Preventing falls in older persons. *NEJM.* 2003;348:42-49.
8. Jarrett PG, Rockwood K, Carver D. Illness presentation in elderly patients. *Arch Intern Med.* 1995;155:1060-1064.
9. Berman P, Hogan DB, Fox RA. The atypical presentation of infection in old age. *Age Ageing.* 1987; 16:201-207.
10. Waterer GW, Kessler LA, Wunderink RG. Delayed administration of antibiotics and atypical presentation in community-acquired pneumonia. *Chest.* 2006; 130:11-15.
11. Budnitz DS, Pollock DA, Weidenbach KN, et al. National surveillance of emergency department visits for outpatient adverse drug events. *JAMA.* 2006;296:1858-1866.
12. Palmer RM, Landefeld CS, Kresevic D et al. A medical unit for the acute care of the elderly. *J Amer Geriatr Soc.* 1994;42:545-552.
13. Landefeld CS, Palmer RM, Kresevic DM, et al. A randomized trial of care in a hospital medical unit especially designed to improve the functional outcomes of acutely ill older patients. *NEJM.* 1995;332:1338-1344.
14. Baylor College of Medicine and the American Medical Association. Recommendations for Best Practices in the Management of Elderly Disaster Victims. www.bcm.edu/pdf/bestpractices.pdf (Accessed December 15, 2008).

15. Katz S, Ford AB, Moskowitz RW, et al. Studies of illness in the aged. The Index of ADL: A standardized measure of biological and psychosocial function. *JAMA*. 1963; 185:914-919.
16. American Geriatrics Society, British Geriatrics Society, and American Academy of Orthopaedic Surgeons Panel on Falls Prevention. Guideline for the prevention of falls in older persons. *J Amer Geriatr Soc*.2001;49:664-672.
17. Volicer L, Harper DG, Manning BC, et al. (2001). Sundowning and circadian rhythms in Alzheimer's disease, *Amer J Psychiatr* 2001;158:704-711.
18. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR*, 4th ed. Washington, DC: American Psychiatric Publishing;1994:124-133.
<http://www.psychiatryonline.com/resourceTOC.aspx?resourceID=1> (Accessed January 12, 2009).
19. Kelly N. The voice on the other end of the phone. *Health Affairs* 2008; 27:1701-1706. Available at: <http://imiaweb.org/uploads/pages/307.pdf> (Accessed February 23, 2009).
20. American Medical Directors' Association Web site. Clinical Corner: *Pressure Ulcers*. www.amda.com/tools/clinical/pressureulcers.cfm (Accessed December 15, 2008)
21. Sarkar PK, Ballantyne S. Management of leg ulcers. *Postgrad Med J*. 2000;76:674-682.
22. Malone A. Enteral formula selection: A review of selected product categories. *Practic Gastroenterol*. 2005;29:44-74.
23. Finucane TE, Christmas C, Travis K. Tube feeding in patients with advanced dementia: A review of the literature. *JAMA*. 1999;282:1365-1370.
24. Ahronheim JC. Artificial nutrition and hydration in the terminally ill patient. *Clin Geriatr Med*. 1996;12(2):379-391.
25. Finucane TE, Bynum JP. Use of tube feeding to prevent aspiration pneumonia. *Lancet* 1996;348:1421-1424 [erratum]. *Lancet*. 1997;349:364.

RESOURCES

American Medical Directors' Association

Clinical Corner: Pressure Ulcers

American Medical Directors Association

Useful clinical information on pressure ulcers, including staging and guidelines for management. www.amda.com/tools/clinical/pressureulcers.cfm

National Pressure Ulcer Advisory Panel
Updated Pressure Ulcer Staging System
www.npuap.org/pr2.htm

The American Geriatrics Society
Get Up and Go Test

Source to assess the risk of falling.

www.americangeriatrics.org/education/02_get_up_go_test.pdf

American Geriatrics Society, British Geriatrics Society, and American Academy of Orthopaedic Surgeons Panel on Falls Prevention
Guideline for the Prevention of Falls in Older Persons
www.americangeriatrics.org/products/positionpapers/Falls.pdf

The University of Chicago

Care of the Hospitalized Aging Medical Patient (CHAMP)

Slide presentations, pocket teaching cards, and other tools to manage conditions encountered in hospitalized elderly patients. Selected topics include falls prevention (including pros and cons of restraints), wound care, dementia, deconditioning and delirium.

<http://champ.bsd.uchicago.edu/index.html>

Mini-CHAMP

Streamlined version of CHAMP

<http://champ.bsd.uchicago.edu/minichamp.html>

The University of Iowa \Geriatric Education
Geriasims

Interactive “virtual patient” simulations (registration required).

- Multiple topics, useful for formal classes in geriatrics;
www.healthcare.uiowa.edu/igec/e-learn_lic/geriasims/default.asp
- Geriatric assessment tools
www.healthcare.uiowa.edu/igec/tools/default.asp
- Time and Change Test
Rapid testing tool for dementia in older patients; useful for ethnically diverse populations.
www.healthcare.uiowa.edu/igec/tools/cognitive/SPMSQ.pdf

Society of Hospital Medicine

Clinical Toolbox for Geriatric Care

A set of online geriatric assessment instruments adapted from multiple sources.

www.hospitalmedicine.org/geriresource/toolbox/howto.htm

Selected tools:

- *Confusion Assessment Method (CAM; for rapid assessment of delirium)*
- *Mini-Cog/Clock-Draw Test (for rapid dementia screening in multilingual elderly population)*

- *Short Portable Mental Status Questionnaire(brief rapid dementia screening test)*
 - *Restraint Alternative Menu (strategies to manage agitated patients without restraints)*
- www.hospitalmedicine.org/geriresource/toolbox/howto.htm

Portal of Online Geriatric Education (POGOe)

Free geriatric educational materials, many peer-reviewed, from many academic medical centers and professional organizations. Registration may be required; after login, go to “Product Library;” selected topics include pressure sore slide presentation, pocket card on approach to older patients, delirium in elderly emergency department patients slide presentation and collections of educational tools from several academic programs.

www.POGOe.org

Selected Clinical Tools

Clock-Draw Test

Rapid dementia screening in multi-lingual elderly

www.hospitalmedicine.org/geriresource/toolbox/pdfs/clock_drawing_test.pdf

Restraint Alternative Menu

www.hospitalmedicine.org/geriresource/toolbox/pdfs/restraint_alternative_progr.pdf

The Hospitalized Frail Elder: Teaching Strategies for Identification and Assessment

A slide show for teaching that provides tools and rationale.

http://champ.bsd.uchicago.edu/identifyingFE/documents/frailty_notes.dktempl.ppt

National Council on Interpreting in Health Care

Organization devoted to improving quality of medical interpreters. Web site contains links, publications, and other resources.

www.ncihc.org

Donald W. Reynolds Consortium for Faculty Development to Advance Geriatric Education

Minifellowships in geriatrics

Three- to four-day minifellowships in geriatrics; some held outside of New York City area. Free for physicians who are not certified in geriatrics and who are not already in programs funded by D.W. Reynolds Foundation.

www.hopkinsmedicine.org/geriatrics/education/Reynolds/Consortium.html

Gerontological Society of America Expert Referral Service

Provides experts in many fields of aging (not intended for patient referrals).

Tel. (202) 842-1275, ext. 142

www.geron.org/Resources/Expert%20Referral%20Service

REUSABLE HEARING AIDS

Various models of pocket type hearing aids can be purchased online from \$20 to more

than \$200 and can be kept in the hospital ward or office. These products consist of a pocket size microphone connected to earphones to be used while interviewing or examining a severely hearing impaired patient who does not have a hearing aid.

SECTION 4. MEDICATIONS: PRESCRIBING AND DISPENSING

PURPOSE

This Section is intended to provide guidance to clinicians and pharmacists on prescribing and dispensing medications to elderly patients during a disaster. The principles outlined can be applied in the emergency department, acute wards or other areas of the hospital, including the Soft Care Area ([see Section 2, Soft Care Area, page 30](#)).

BACKGROUND

Elderly patients take more prescription and non-prescription medications than any other age group¹ and many need help accessing or taking their medications. Medication regimens are often complex, involving any combination of injectable, transdermal, inhaled and ocular preparations in addition to oral medications, which may need to be crushed or given in liquid form. Even in the best of circumstances, elderly people may not adequately follow prescribed regimens.²

In addition, older patients have more adverse drug events than any other population group³ due in part to a lack of knowledge among prescribers about geriatric dosing and what medications are risky or inappropriate for older adults. As many as 42% of serious adverse drug reactions among the elderly may be preventable.⁴⁻⁵ Also, newer medications require extra caution because very few subjects in clinical trials are over 65 years of age.⁶

In a disaster, access and adherence to medication regimens would likely be exacerbated by (1) a lack of vital medical and social services, and personal caretakers;⁷ (2) patients arriving at hospitals or other sites without bringing their medications or information about their prescribed regimen; (3) a shortage of providers with geriatric training, which could increase the likelihood of adverse drug events.

PLANNING GUIDELINES

1. Build an Inventory of Essential Inpatient and Outpatient Medications

Hospital pharmacies should (1) maintain supplies of disaster-specific medications appropriate for elderly patients; (2) develop systems to ensure that, during a disaster, hospitalized, elderly patients have access to essential medications that they take on an ongoing basis; (3) stock minimal-dosage tablets and special formulations of commonly used medications, such as liquid preparations, and scored or crushable pills; (4) have an additional, minimum 4-day supply of commonly prescribed, essential outpatient medications for use by medically stable patients who are awaiting discharge from the emergency department or acute wards ([see Section 4, Resources, Most Commonly Prescribed Outpatient Medications for People 65 and Older in New York City, page 85](#)).

2. Ensure Adherence to Principles of Geriatric Prescribing and Administration

Clinical departments should ensure that clinicians are trained in geriatric prescribing principles or methods of administration, as appropriate. Basic tools are available that can provide rapid teaching or immediate guidance for all. Hospital pharmacists should also have rapid access to such guidelines so they can serve as a second check in a disaster. [Tools 4-2 to 4-8, pages 66-83](#) are provided below for training and rapid reference.

TOOLS

Tools 4-1 to 4-8 consist of quick reference tables to assist clinicians in appropriate prescribing practices for elderly patients. The information is particularly pertinent to the management of frail elderly, who often experience adverse effects at usual adult doses and tend to experience specific adverse effects that younger patients generally do not. An understanding of these factors begins with an awareness of certain pharmacokinetic and pharmacodynamic changes that occur with age.

Tool 4-1. Age-associated Pharmacokinetic and Pharmacodynamic Changes*

Pharmacokinetics

- Average 50% decline in renal function by age 70, though not universal
- Serum creatinine is an unreliable measure of renal function in elderly patients, often masking renal insufficiency
- Consequences of occult renal insufficiency: elevated drug levels after continuous dosing of renally excreted drugs or active metabolites; adverse drug events likely when using medications with a narrow therapeutic index (elevated toxic-to-therapeutic ratio)
- Reduced hepatic oxidative metabolism that varies greatly among patients based on genetic differences, comorbidities, smoking, and other extrinsic factors
- Altered drug distribution, due to:
 - Low serum albumin (usually in chronic or acute illness), increasing free fraction of highly bound drugs and requiring cautious interpretation of therapeutic drug levels (e.g. phenytoin)
 - Increased fat-to-lean ratio, causing increased duration of the action of lipophilic drugs (e.g. many CNS drugs)
 - Decreased body water, causing more rapid onset and peak effect of drugs that distribute in water (e.g., ethanol)

Pharmacodynamics

- Altered (usually enhanced) sensitivity to medications
- Overt and preclinical disease enhancing the risk of specific adverse drug events ([see Section 4, Tool 4-7, Medication Adverse Effects in Elderly Patients with Specific Conditions, page 81](#))

*For additional information, [see Section 4, Reference 8, page 84](#)

Tool 4-2. Geriatric Medication Guidelines for Commonly Encountered Medical Conditions in the Acute Care Setting.*		
INDICATION	PREFERRED DRUG AND STARTING DOSE**	SPECIFICS OF GERIATRIC USE
Influenza A	<p>Oseltamivir (Tamiflu®) Usual adult dose: Treatment: 75 mg twice daily Prophylaxis: 75 mg daily</p> <p>Based on CDC recommendations for 2009-10 influenza season⁹; otherwise adhere to recommendations of NYC Department of Health and Mental Hygiene at time of incident</p>	<ul style="list-style-type: none"> Adjust for renal function: Creatinine clearance <30 mL/min: 75 mg daily for treatment; 75 mg every other day for prophylaxis (no data available for CrCl<10) Reported to cause mental status changes in children, though not in the elderly, despite renal elimination of this drug Avoid amantadine and rimantadine because of CNS side effects (unless neuraminidase inhibitor such as oseltamivir cannot be given), or adjust for renal function[¶]
Anthrax	<p>Ciprofloxacin</p> <ul style="list-style-type: none"> Adhere to recommendations of NYC Department of Health and Mental Hygiene at time of incident for specific drug selection See also Centers for Disease Control and Prevention (CDC) recommendations,¹⁰ visit: www.cdc.gov/mmwr/preview/mmwrhtml/mm5042a1.htm#tab1 	<ul style="list-style-type: none"> Inhibits metabolism of warfarin and certain other medications metabolized by CYP450 enzymes Adjust for renal function[¶] For both ciprofloxacin and doxycycline, avoid calcium and iron supplements, which may chelate the antibiotic and reduce absorption
Pneumonic Plague	<p>Adhere to recommendations of NYC Department of Health and Mental Hygiene at time of incident for specific drug</p>	<p>If using aminoglycosides or carbapenems, adjust the maintenance dose or the interval between doses to account for renal function[¶]</p>

Tool 4-2. Cont'd		
PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**
Other Bacterial Infections	<p>Various Medications</p> <p>Select antibiotic based on specific indication and antimicrobial sensitivity; do not avoid based on advanced age</p>	<ul style="list-style-type: none"> Aminoglycosides, vancomycin and carbapenems—adjustment for renal function[¶] mandatory because of serious dose-related toxicity If available, serum-drug monitoring is appropriate Other renally eliminated antimicrobials with dose-related adverse effects (e.g. ciprofloxacin; amantadine)--dose adjustment for renal function is optimal
Acute Herpes Zoster	<p>Acyclovir, Famciclovir, Valacyclovir</p> <p>In general, give usual adult dose of selected agent</p>	<ul style="list-style-type: none"> Oral agents: may adjust for renal function[¶] by increasing the dosing interval (this will also improve adherence) Intravenous acyclovir: adjust for renal function[¶] and maintain adequate hydration
Congestive Heart Failure	<p>ACE inhibitor, angiotensin receptor blocker (ARB), beta blocker</p> <ul style="list-style-type: none"> Use the lowest possible starting dose and titrate slowly <p>Furosemide oral: 10-20 mg</p> <p>Furosemide intravenous: 5-10 mg for frail elderly</p>	<ul style="list-style-type: none"> If digoxin is used, adjust for renal function[¶] Adjust other drugs according to clinical response to avoid symptomatic hypotension Discontinue pioglitazone or rosiglitazone if either was previously prescribed for diabetes

Tool 4-2. Cont'd		
PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**
Hallucinations or Delusions (if disturbing to patient or interfering with essential care)	Quetiapine (Seroquel®): 25-50 mg Risperidone (Risperdal®): 0.25-0.5 mg Olanzapine (Zyprexa®): 5 mg Haloperidol (Haldol®): 0.25-0.5 mg Clozapine (Clozaril®): 6.25-25 mg <u>(if other agents cannot be used)</u>	<ul style="list-style-type: none"> Dosing interval of antipsychotic medications depends on response – avoid oversedation Quetiapine is less likely to produce extrapyramidal symptoms compared to other antipsychotics (except clozapine) Reserve clozapine for patients in whom atypical antipsychotics are contraindicated (such as Parkinson's Disease or Lewy body dementia) due to their extrapyramidal effects; this is necessary since clozapine requires frequent hematologic monitoring for neutropenia Olanzapine requires monitoring for hyperglycemia Haloperidol has high risk of Parkinsonian adverse effects and is best for short term use; contraindicated in patients with Parkinson's disease or Lewy body dementia Hallucinations and delusions in dementia that are not disturbing to the patient do not require medication unless they interfere with essential care, though family and staff may need reassurance

Tool 4-2. Cont'd		
PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**
Agitated Delirium	Haloperidol, oral or subcutaneous: 0.5-1 mg	<ul style="list-style-type: none"> • Avoid benzodiazepines (may worsen delirium) • Address underlying cause of delirium immediately (see Section 3, Clinical Care of Acutely Ill Elderly Patients, page 42) • Use nonpharmacological (interpersonal) methods whenever possible • Haloperidol when given in high intravenous doses (unlabeled use) is proarrhythmic ¹¹
Hypertension	<p>ACE Inhibitor, angiotensin receptor blocker (ARB), thiazide or dihydropyridine calcium channel blocker</p> <ul style="list-style-type: none"> • Select drug according to patient risk profile and comorbidities • Use lowest starting dose and titrate over several days 	<ul style="list-style-type: none"> • Avoid abrupt lowering of blood pressure • Beta blockers: In general, reserve for patients with coexisting CHF, coronary artery disease, or arrhythmia; extreme caution required if patient has a history of bronchospasm • Hydralazine may be used as second-line medication • Rare bladder symptoms occur with calcium channel blockers • Nondihydropyridine calcium channel blockers verapamil and diltiazem are very constipating • Alpha blockers may cause orthostatic hypotension; first dose requires extra caution in frail elderly individuals

Tool 4-2. Cont'd

PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**
Diabetes	<p>Various Medications</p> <ul style="list-style-type: none"> • Select oral agents according to patient's side-effect risk profile • Initial therapy of all oral agents: smallest available dose and gradual titration • Insulin: no specific age-adjusted dosing parameters 	<ul style="list-style-type: none"> • Metformin contraindicated in renal failure; use with caution in patients with creatinine clearance >30 but <50 mL/min; temporarily discontinue if risk of renal insufficiency arises (e.g., planned contrast study or surgery) • Pioglitazone and rosiglitazone contraindicated in congestive heart failure • Sulfonylureas: glyburide (Micronase[®], Diabeta[®]) more likely to cause hypoglycemia than glipizide (Glucotrol[®]) or glimepiride (Amaryl[®]) • For all agents, avoid hypoglycemia; signs and symptoms may not be apparent
History of Thrombotic Stroke, Transient Ischemic Attack or Coronary Heart Disease	Aspirin: 81-325 mg once daily	Adding clopidogrel (Plavix [®]) increases gastrointestinal and other bleeding events with little or no proven additional benefit in most cases; however, clopidogrel may be useful for patients with true aspirin allergies

Tool 4-2. Cont'd		
PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**
Peptic Ulcer and Gastritis	Proton pump inhibitors (PPIs) Histamine-2 (H-2) blockers: famotidine, nizatidine, ranitidine	<ul style="list-style-type: none"> • No dose adjustments necessary for oral use of PPI or H-2 blockers • H-2 blockers: adjust for renal function[¶] if given intravenously • Possible to discontinue PPI or H-2 blocker if it has been prescribed as routine prophylaxis • Cimetidine may be used as second line H-2 blocker (may cause drug interactions and mental status changes); adjust for renal function[¶] • Magnesium-aluminum-containing antacids are acceptable as second-line treatment, though should generally be reserved for nonulcer dyspepsia
Seizure Disorder	Various Medications No age-specific age guidelines or drug selection	<ul style="list-style-type: none"> • Phenytoin (Dilantin®): toxicity of repeated dosing may cause stupor and coma; serum total drug levels may be falsely low in hypoalbuminemia and post-dialysis (compared to free drug level, not routinely available) • Gabapentin may cause or worsen edema • All anticonvulsants can cause lethargy or confusion, especially at higher doses

Tool 4-2. Cont'd		
PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**
Deep Vein Thrombosis (DVT) Prophylaxis	Low molecular weight heparin (LMWH) Unfractionated heparin	<ul style="list-style-type: none"> LMWH: adjust for renal function[¶] Unfractionated heparin enhances risk of osteoporosis with chronic dosing (discontinue at discharge or switch to alternative prophylaxis if needed)
Deep Vein Thrombosis (DVT) or Pulmonary Embolism Treatment	Low molecular weight heparin (LMWH) Unfractionated heparin	<ul style="list-style-type: none"> LMWH: adjust for renal function[¶] Unfractionated heparin: adjust according to activated partial thromboplastin time (aPTT)
Atrial Fibrillation (rate control)	Beta blocker; diltiazem Digoxin is acceptable as a second-line agent	<ul style="list-style-type: none"> Digoxin: adjust maintenance dose for renal function[¶] Diltiazem: monitor for constipation
Atrial Fibrillation (chronic; prevention of thromboembolism)	Warfarin, adjusted for international normalized ration (therapeutic range 2-3) Aspirin 325 mg daily (second line)	<ul style="list-style-type: none"> Warfarin: individualize decision to use based on patient's function, the risk of falling, and the presence of lesions that may bleed; associated with many under-recognized drug interactions (e.g. certain antibiotics, grapefruit juice, St. John's wort) Aspirin is less effective than warfarin; use if warfarin contraindicated; limited data on efficacy of doses lower than 325 mg

Tool 4-2. Cont'd		
PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**
Pain: Mild	<p>Acetaminophen 325 mg 1-2 tablets every 6 hours (may give around the clock)</p> <p>Ibuprofen 200-400 mg if no effect from acetaminophen</p>	<ul style="list-style-type: none"> ▪ Acetaminophen: maximum daily dose of ≤ 3 gm is theoretically preferable to 4 gm, but supporting data is lacking ▪ Ibuprofen: associated with increased risk of upper gastrointestinal bleeding in elderly, especially if given around-the-clock
Pain : Mild to Moderate Due to Inflammatory Conditions	<p>Ibuprofen 200-400 mg every 6-8 hours; may be given around the clock with caution</p> <p>Corticosteroid for acute gout at usual adult starting dose</p>	<ul style="list-style-type: none"> • Non-steroidal anti-inflammatory agents (NSAIDs) and COX-2 inhibitors are associated with increased risk of upper gastrointestinal bleeding in elderly (NSAID gastropathy) • Short-acting agents such as ibuprofen given as needed (“PRN”) are preferable to long-acting NSAIDs, which have enhanced risk of bleeding or other adverse effects • Monitor for gastrointestinal symptoms or occult bleeding, especially if administering around the clock • COX-2 and other NSAIDs: monitor for edema, sustained elevations in blood pressure, or deterioration in renal function associated with repeated dosing • Corticosteroids: observe for insomnia, psychosis and agitation; avoid chronic dosing if possible due to osteoporosis risk

Tool 4-2. Cont'd		
PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**
Pain: Moderate	<p>Codeine-acetaminophen (30 to 60 mg codeine plus 325 mg acetaminophen)</p> <p>Hydrocodone-acetaminophen (Vicodin®) (5 mg hydrocodone plus 500 mg acetaminophen)</p> <p>Oxycodone-acetaminophen (Percocet®) 5/325; if lower dose needed, can give 2.5/325 mg dosage form if available (Percocet-Demi®)</p> <p>Tramadol (Ultram®): 25-50 mg</p>	<ul style="list-style-type: none"> • Monitor for constipation, oversedation, confusion and urinary retention • Extra caution required when initiating dose in frail elderly, opioid-naïve patients <p>Avoid a maximum daily dose of acetaminophen greater than 3 to 4 gm</p> <ul style="list-style-type: none"> • Tramadol may be less constipating than non-μ-receptor-specific opioids; concurrent use with serotonergic drugs (e.g., selective serotonin reuptake inhibitors) may result in serotonin syndrome

Tool 4-2. Cont'd

PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**
Pain: Severe or not responding to moderate pain regimens	<p>Oxycodone 2.5-5 mg</p> <p>Morphine 2.5-5 mg p.o. (1-2 mg subcutaneous)</p> <p>Hydromorphone (Dilauded®) 1-2 mg (0.5 mg s.c.)</p> <p>Tramadol: See moderate pain regimen in box above, page 74; titrate to effect</p> <p>For further guidelines on dose titration in frail elderly, see Section 7, Tool 7-6, Age-adjusted Dosing for Opioid Treatment of Acute Pain, page 130 and Tool 7-7, Severe Symptom Management Chart, page 131.</p>	<ul style="list-style-type: none"> • Use half of the usual starting dose for opioid-naïve frail elderly, especially when giving intravenously or subcutaneously, and monitor closely for hypotension and lethargy • Liquid forms of most opioids are available; rectal opioid absorption is erratic • Monitor for constipation and add laxative early • Drug accumulation is common, especially with morphine, because active metabolite is excreted renally; monitor closely if prescribed around the clock • Fentanyl patch: apply only after titration of short-acting opioid; avoid in opioid-naïve patients¹² • Methadone: extreme caution is required because the duration of analgesia is intermediate but the drug half life is very long; there is a significant risk of drug accumulation • Avoid meperidine (Demerol®) because of accumulation of renally excreted toxic metabolite • Avoid propoxyphene (minimal therapeutic effect despite opioid side effects; may cause cardiac dysrhythmia))

Tool 4-2. Cont'd		
PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**
Pain: Neuropathic	<ul style="list-style-type: none"> • Opioids (see above) • Gabapentin – 100 mg t.i.d. or 300 mg at bedtime • Pregabalin (Lyrica®) – 50 mg t.i.d. or 150 mg h.s. 	<ul style="list-style-type: none"> • Opioids: see above • Gabapentin is renally eliminated; monitor for sedation and confusion; may give entire dose at night • Gabapentin and pregabalin may cause or worsen edema; may produce dose-related sedation and confusion • Tricyclic antidepressants (TCAs) should be used as second line because of adverse effects (nortriptyline is preferred if TCA is needed); use the smallest available dose and monitor for confusion and urinary retention

Tool 4-2. Cont'd		
PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**	PREFERRED DRUG AND STARTING DOSE**
Wheezing	<ul style="list-style-type: none"> Inhaled beta agonists 	<ul style="list-style-type: none"> Generally well-tolerated in usual adult doses; distinguish between tachycardia due to respiratory distress and tachycardia associated with excessive dose of the drug Observe whether the patient can use hand-held or metered dose inhaler (MDI) properly; a spacer for MDI or face mask for nebulized delivery may be necessary May use cautiously in patients with cardiac asthma (bronchospasm resulting from congestive heart failure) as adjunct to loop diuretic and ACE inhibitor For chronic obstructive pulmonary disease, may give in conjunction with inhaled ipratropium, which has a relatively low risk of producing anticholinergic side effects at the usual doses If corticosteroids are used, monitor for insomnia, psychosis and agitation; reduce dose or taper rapidly if mental status is altered
<p>*See also dose recommendations in Section 5, Mental Health Issues, page 86 and Section 7, Palliative Care, page 119.</p> <p>** Assumes absence of hepatic dysfunction and overt renal failure; renal guidelines in this tool are based on age-related occult renal insufficiency (see Section 4, Tool 4-3, Rapid Estimate of Creatinine Clearance Using the Cockcroft Gault Equation, page 78 – immediately below)</p> <p>¶Serum creatinine is a poor predictor of renal function in older adults (overestimates creatinine clearance). Adjust maintenance dose for renal function or increase interval between doses.</p>		

Tool 4-3. Rapid Estimate of Creatinine Clearance by Using the Cockcroft Gault Equation*

$$\text{Creatinine clearance} = \frac{(140 - \text{age}) \times \text{weight in kg}}{72 \times \text{serum creatinine}}$$

(multiply x 0.85 for women)

The above calculation assumes stable renal function and lean/ideal body weight

Caveats:

- Vertical height measurement is problematic in the elderly because of age-related height loss, making estimates of lean body weight unreliable; thus, actual weight may be more reliable measure to utilize unless patient is obese
- Serum creatinine level less than 1.0 mg/dL in frail elderly individuals may lead to significant overestimate of creatinine clearance in debilitated elderly patients when using this and similar equations.

*Cockcroft DW, Gault M. Prediction of creatinine clearance from serum creatinine. *Nephron*. 1976; 16:31–41. ¹³

Note: Other methods have been proposed for estimating creatinine clearance in the elderly, though no method has been shown to be superior; for additional information see [Section 4, Reference 14, page 85](#).

Tool 4-4. Drugs That May Cause Mental Status Changes in Elderly Individuals*

- Antipsychotics, especially at usual adult doses
- Hypnotics
- Benzodiazepines
- Barbiturates
- Clonidine
- Quinolone antibiotics
- Corticosteroids
- Opioid analgesics
- Gabapentin and pregabalin
- Other anticonvulsants
- Tricyclic antidepressants
- Sedating antihistamines (partial list)
 - Diphenhydramine (Benadryl[®]; Tylenol PM[®])
 - Hydroxyzine (Atarax[®]; Vistaril[®])
 - Meclizine (Antivert[®])
 - Doxylamine (Unisom[®])
- Other anticholinergics
- Cimetidine
-
- Oseltamivir (Tamiflu[®])**
- Levodopa-carbidopa
- Amantadine and rimantadine
- Other dopamine agonists
- Lidocaine (intravenous)
- Muscle relaxants
 - Methocarbamol (Robaxin[®])
 - Orphenadrine (Norflex[®])
 - Cyclobenzaprine (Flexeril[®])
 - Carisprodol (Soma[®])
 - Chlorzoxazone (Parafon Forte[®])
- Isoniazid (INH)
- Theophylline
- Nonsteroidal antiinflammatory agents
- Digoxin (rare at therapeutic doses)
- Beta blockers (rare)

*Mental status changes may be dose related

** May cause altered mental status, including delirium, although published reports to date are primarily of children and adolescents

Tool 4-5. Drugs That May Cause Urinary Retention

- Sedating “first generation” antihistamines
 - Diphenhydramine (Benadryl[®]; Tylenol PM[®])
 - Hydroxyzine (Atarax[®]; Vistaril[®])
 - Meclizine (Antivert[®])
 - Doxylamine (Unisom[®])
- Tricyclic antidepressants
- Opioids
- Gabapentin
- Oxybutynin (Ditropan[®])
- Tolterodine (Detrol[®])
- Other anticholinergics
 - Scopolamine
 - Hyoscyamine (Levsin[®])
 - Dicyclomine (Bentyl[®])
 - Benztropine (Cogentin[®])
 - Trihexyphenadyl (Artane[®])
- Calcium channel blockers (rare)

Tool 4-6. Drugs that Commonly Cause Constipation

- Opioids
- Calcium- channel blockers, especially verapamil and diltiazem
- Aluminum-containing antacids
- Anticholinergic medications (e.g. tricyclic antidepressants and antispasmodics)
- Antidiarrheal drugs
- Excessive fiber supplements
- Calcium supplements

Tool 4-7. Medication Adverse Effects in Elderly Patients with Specific Conditions

Underlying Disorder (may be pre-clinical)	Drug	Potential Outcome
Dementia or other cerebrocortical disease	Many (for list of drugs, see Section 4, Tool 4-4, Drugs That May Cause Mental Status Changes in the Elderly, page 79)	Confusion, sedation
<ul style="list-style-type: none"> • Pre-clinical Parkinson's disease • Dementia with Lewy bodies 	<ul style="list-style-type: none"> • Antipsychotic agents • Metoclopramide 	<ul style="list-style-type: none"> • Extrapyrimalidal symptoms • Rigidity and Gait instability • Tremor
Parkinson's disease	<ul style="list-style-type: none"> • Dopamine agonists • Levodopa-carbidopa (Sinemet[®]) • Amantadine 	<ul style="list-style-type: none"> • Hallucinations, worsening confusion • Amantadine may also cause overstimulation
<ul style="list-style-type: none"> • Impaired baroreceptor function • Venous insufficiency 	<ul style="list-style-type: none"> • Diuretics • Tricyclic antidepressants • Phenothiazines • Alpha blockers • Others 	Orthostatic hypotension
Increased ADH secretion (age-related change)	<ul style="list-style-type: none"> • Thiazide diuretics • Selective serotonin reuptake inhibitors • Tricyclic antidepressants • Others 	Hyponatremia

Tool 4-7. Cont'd

Underlying Disorder (may be pre-clinical)	Underlying Disorder (may be pre-clinical)	Underlying Disorder (may be pre-clinical)
Cardiac conduction disease	<ul style="list-style-type: none"> • Verapamil • Diltiazem • Digoxin • Beta blockers • Other antiarrhythmics • Cholinesterase inhibitors 	Bradycardia
Venous insufficiency	<ul style="list-style-type: none"> • Calcium channel blockers • Hydralazine • Gabapentin, pregabalin • Rosiglitazone, pioglitazone 	Edema
<ul style="list-style-type: none"> • Chronic open-angle glaucoma • Bone loss • Lens cloudiness 	Corticosteroids	<ul style="list-style-type: none"> • Increased intraocular pressure • Accelerated osteoporosis (associated with chronic use) • Accelerated cataract formation (associated with chronic use)
Benign Prostatic Hyperplasia	Many (for list of drugs, see Section 4, Tool 4-5, Drugs That May Cause Urinary Retention, page 80)	Urinary retention
Hyperparathyroidism	Thiazide diuretics	Hypercalcemia
<ul style="list-style-type: none"> • Immobility • Age-related increased bowel transit time 	<ul style="list-style-type: none"> • Diltiazem • Verapamil • Calcium supplements • Iron supplements • Aluminum-containing antacids 	<ul style="list-style-type: none"> • Constipation • Fecal impaction

Tool 4-8. Non-essential Medications that Could Be Discontinued during Acute Hospitalization

- Vitamin C and zinc for wound healing
- Calcium supplements, bisphosphonates, raloxifene and calcitonin for age-related osteoporosis
- Proton pump inhibitor or H-2 blocker for routine prophylaxis (unless patient has history of peptic ulcer, non-steroidal-antiinflammatory drug gastropathy or other clearcut indication)
- Therapeutic equivalents—duplicates from the same drug family
- Donepezil (Aricept[®]), other anticholinesterase inhibitors and memantine (Namenda[®]) for dementia; best to taper rather than to abruptly stop

REFERENCES

1. Centers for Disease Control and Prevention: National Center for Health Statistics. Health, United States, 2007. www.cdc.gov/nchs/data/abus/abus07.pdf#summary. Accessed November 25, 2009.
2. Claxton AJ, Cramer J, Pierce C. A systematic review of the associations between dose regimens and medication compliance. *Clin Ther*. 2001; 23:1296-1310.
3. Budnitz DS, Pollock DA, Weidenbach KN, et al. National surveillance of emergency department visits for outpatient adverse drug events. *JAMA*. 2006; 296:1858-1866.
4. Gurwitz JH, Field TS, Harrold LR, et al. Incidence and preventability of adverse drug events among older persons in the ambulatory setting. *JAMA*. 2003; 289(9):1107-1116.
5. ADE Prevention Study Group. Bates DW, Cullen DJ, Laird N, et al. Incidence of adverse drug events and potential adverse drug events. Implications for prevention. ADE Prevention Study Group. *JAMA*. 1995; 274(1):29-34.
6. Lee PY, Alexander KP, Hammill BG, et al. Representation of elderly persons and women in published randomized trials of acute coronary syndromes. *JAMA*. 2001; 286: 708-713.
7. Waltman SC. Testimony of the Greater New York Hospital Association on New York City Hospitals in the Blackout of 2003: Lessons learned. Public hearing held before the New York City Council Committee on Health, September 29, 2003. www.gnyha.org/26/File.aspx www.gnyha.org/26/File.aspx. Accessed February 10, 2009.
8. Bressler R, Bahl JJ. Principles of drug therapy for the elderly patient. *Mayo Clinic Proceedings* 2003; 78:1564-1577.
9. Centers for Disease Control and Prevention. Seasonal Influenza Information for Health Professionals, 2007-08. Antiviral Agents Updated Interim Recommendations for the Use of Antiviral Medications in the Treatment and Prevention of Influenza for the 2009-2010 Season. <http://www.cdc.gov/flu/h1n1flu/recommendations.htm>. Accessed November 16, 2009.
10. Centers for Disease Control and Prevention. Update: Investigation of Bioterrorism-related Anthrax and Interim Guidelines for Exposure Management and Antimicrobial Therapy, October 2001. *MMWR Morbidity and Mortality* 2001; 50:909-919. www.cdc.gov/mmwr/preview/mmwrhtml/mm5042a1.htm (Accessed November 16, 2009).
11. U.S. Food and Drug Administration., Center for Drug Evaluation and Research. *Information for Healthcare Professionals: Haloperidol (marketed as Haldol, Haldol Decanoate and Haldol Lactate)*, Available at: <http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/DrugSafetyInformationforHealthcareProfessionals/ucm085203.htm>

12. FDA: Food and Drug Administration. Fentanyl transdermal patch. Important information for the safe use of the fentanyl transdermal system (patch). Available at <http://www.fda.gov/Drugs/DrugSafety/PublicHealthAdvisories/ucm048721.htm>
13. Cockcroft DW, Gault M. Prediction of creatinine clearance from serum creatinine. *Nephron*. 1976; 16:31–41.
14. Van Den Noortgate NJ, Janssens WH, Delanghe JR et al. Serum cystatin C concentration compared with other markers of glomerular filtration rate in the old old. *Journal of the American Geriatrics Society* 2002;50:1278-82.

RESOURCES

State University of New York – Downstate

Most Commonly Prescribed Outpatient Medications for Aged People 65 Years and Older, New York *“Medications” are defined as those purchased from retail pharmacies in 2007. . They are sorted by borough, neighborhood, and zip code. For a list of the top 20 medications in a specific catchment area, a hospital representative should contact SUNY-Downstate, Department of Pharmacy
Tel: 718-270-4238

Commission for Certification in Geriatric Pharmacy

This organization administers and determines eligibility for and administers the Certification Examination in Geriatric Pharmacy for licensed pharmacists with at least 2 years of experience; it also provides online self- assessment tools. The commission’s Web site has listing of certified geriatric pharmacists in New York and other regions.
www.ccgp.org

Duke University

Center for Clinical and Genetic Economics

The BEERS List: Potentially Inappropriate Medications for the Elderly

A listing of medications to avoid or use with extreme caution according to Beers Criteria.¹⁶⁻¹⁷ . The Web site has links to MEDLINEPlus for each medication, which gives guidelines for use (MEDLINEPlus guidelines are not geriatric specific).
www.dcri.duke.edu/ccge/curtis/beers.html

SECTION 5. MENTAL HEALTH ISSUES

PURPOSE

This Section is designed to assist clinicians manage mental health issues in elderly patients hospitalized in emergency departments, a Soft Care Area ([see Section 2, Soft Care Area, page 30](#)) or acute care inpatient units, and who may:

- Have a history of psychiatric disease
- Develop urgent mental health problems associated with the disaster
- Are at greater risk of developing post-disaster mental health problems
- Develop confusion, anxiety or other symptoms due to displacement from home, loss of health care services, or disruptions in taking medication

The Section also provides guidance on diagnosing and managing behavioral or cognitive changes in patients who have a history of dementia or mild cognitive impairment, including:

- Distinguishing psychiatric and psychological syndromes from chronic neurological syndromes, such as dementia
- Recognizing delirium, and distinguishing it from dementia

There are also tools for recognizing and managing specific psychiatric syndromes that may occur in elderly patients in disasters, including:

- Anxiety
- Mood disorders, especially depression
- Secondary features of dementia, including agitation, delusions and hallucinations
- Withdrawal syndromes from interruptions in taking medications (opioids, sedative-hypnotics and antidepressants)

BACKGROUND

Vulnerable People Suffer Disproportionately in a Disaster

Many elderly residents in NYC live alone and in poverty;¹ in addition, many are dependent on home-based health services, which can be disrupted in a disaster. Such obstacles, often compounded by difficulty in making social contacts and displacement from the familiarity of the home environment, can cause fear, confusion and anxiety, and even physical decline. In community-wide disasters, death rates may be highest among the elderly,² but other vulnerable adults may face a similar loss of psychosocial and medical support in these situations, with serious short- and long-term consequences.

Psychological Responses to Trauma in the Elderly are Highly Variable

It is erroneous to generalize about how older adults will respond to the trauma of a disaster compared with younger adults—some are more vulnerable psychologically and

others more resilient.³ It is important, therefore, to customize treatment according to individual needs. For example, an elderly patient with existing psychiatric disease may be at higher risk for mental and physical health problems from poor self-care, loss of access to medication or social support, or other factors.

Disaster preparedness can help prevent mental health problems

Disaster mental health experts agree that community, family and individual preparedness—knowing what to do in the event of a disaster and being prepared for evacuation and care—can reduce the risk of mental health problems in disasters. Government agencies and many charitable and other organizations in New York City offer a wide variety of tools and resources for older adults and other vulnerable populations, such as people with disabilities. For more information about these programs, [see Section 5, Resources, page 100](#).

An acute change in mental status is a medical emergency

Acute mental status changes in people without a history of psychiatric disease are almost always due to a medical condition or an acute neurological syndrome, and not to psychiatric disease. Because it is urgent to diagnose and treat such patients, clinicians need information about the patient’s baseline cognitive function, information which may not be available in a disaster. Therefore, it is important for providers to recognize the great variability in cognitive function in the older population and to avoid making assumptions that cognitively impaired patients have dementia.

Although dementia is very common by age 85 years,⁴ and afflicts as many as 70% of nursing home residents,⁵ most community-dwelling people over 65 years of age are cognitively intact and able to live independently. However, many independently living may have “mild cognitive impairment,”⁶ a lesser form of cognitive dysfunction which may foreshadow dementia, or may have subclinical dementia without any apparent cognitive deficits. Such individuals, like those with dementia, are at enhanced risk of developing acute mental status changes from a large variety of insults, many of which are potentially reversible, especially if treated promptly ([see Section 3, Clinical Care of Acutely Ill Elderly Patients, page 42](#)).

Older adults may develop psychiatric disease for the first time late in life and presentations may evade accurate diagnosis

In contrast to the neurological syndrome of dementia, most chronic psychiatric illnesses develop before age 60 years, but when psychiatric disease first appears later in life, it may have an “atypical” presentation. The most common mental health problems in older adults are anxiety and mood disorders, especially clinical depression.⁷ Severe symptoms of depression in elderly people usually occur in those with a history of clinical depression, whereas depressive symptoms beginning later in life are generally less severe or are masked by somatic complaints.⁸⁻¹⁰ These symptoms, which often develop as a result of personal loss, are commonly overlooked, but still require close attention.

Features of schizophrenia likewise tend to differ when onset is after age 60 years, but this late onset schizophrenia is uncommon.¹¹⁻¹² Regardless of age of onset, symptoms may evolve as patients age; for example, patients may gradually demonstrate fewer “positive” symptoms like hallucinations and delusions, whereas “negative” symptoms like social

withdrawal, poor self-care and apathy, tend to predominate.

Finally, psychiatric symptoms such as delusions or hallucinations may occur in patients with Alzheimer's disease, Lewy body dementia and dementia associated with Parkinson's disease. The management of these symptoms differs in many ways from the management of psychotic symptoms in adults (especially the nonelderly) who have chronic psychiatric disease ([see Section 5, Tool 5-3, Managing Agitation in Patients with Dementia or Delirium, page 91](#) and [Tool 5-5, Features that Distinguish Psychiatric Diseases and Dementia in Elderly Patients, page 93](#)).

Substance abuse and withdrawal is under-recognized in elderly individuals

Substance abuse is much less common in people older than age 70 years than among younger adults.¹³ However, misuse of substances, particularly alcohol, is under-recognized in older adults, especially when it begins late in life;¹⁴⁻¹⁵ in addition, disasters may increase the risk of renewed drinking among people with a history of alcohol misuse.¹⁶

Hospital staff may overlook withdrawal syndromes related to alcohol or prescription medication. Patients regularly taking medications such as opioids, benzodiazepines or non-benzodiazepine hypnotics like zolpidem, may develop withdrawal syndromes if they cannot obtain their medications or if hospital personnel are not aware they are using these medications.

The risk of suicide increases with age and is especially high in older men

In the United States, suicide risk is particularly high among white and Native American men, and in all ethnic groups men have a substantially higher risk of suicide than women do.¹⁷ Suicide attempts also increase with age; the risk is higher among women than men in early adulthood and midlife, but the risk is as high or higher among men after age 60 years.¹⁷

Studies show inconsistent findings about the suicide risk associated with disasters; however, one study during the Asian SARS epidemic showed an increased risk in older women,¹⁸ raising the possibility that disruptions in the social network or in access to health care could contribute. Clearly, vigilance is required, especially after hospital discharge.

PLANNING GUIDELINES

1. Identify One or More Individuals with Expertise in Geriatric Mental Health to Participate in Disaster Planning

These individuals should also help provide psychiatric care and counseling to elderly adults with psychiatric symptoms and help educate staff who will provide mental health services during a disaster. Ideally, one of these individuals should be a geropsychiatrist with a Certificate of Added Qualifications in Geriatric Psychiatry from the American Board of Psychiatry and Neurology. The geropsychiatrist would work with professionals from other mental health disciplines to provide training and overall mental health preparedness for the institution and the community.

Psychiatric and related departments should identify professionals from other disciplines, such as psychology and social work, who have skills in geriatric counseling and training. Geropsychiatry fellows in training who have completed a residency in general psychiatry should also be considered to provide consultation and assist in training others.

2. Emergency Departments, Acute Care Wards and Other Areas Where Geriatric Care Will Take Place Should be Prepared to Call Upon Relevant Specialists in Geriatric Medicine or Nursing

Geriatric medicine specialists (geriatricians) and geriatric-trained advanced practice nurses, if available, should help care for patients who develop behavioral or psychiatric features of dementia, or acute mental status changes, such as delirium. These specialists should also supervise or help provide the complex medical care of frail elderly being treated for psychiatric diseases ([see Section 3, Tool 3-1, When to Obtain Geriatric Medicine Consultation, page 44](#)).

3. Encourage Outpatient Providers, Clinics and Emergency Departments to Continuously Identify High Risk Patients Before a Disaster, and Provide Them, Their Caregivers and Their Adult Children with Guidance and Literature on Disaster Preparedness

Hospitals should reach out to primary care providers and encourage them to provide guidance to their patients concerning disaster preparedness ([see Section 5, Resources, page 100](#)). In addition, providers should be encouraged to maintain phone or email contact with the adult children of vulnerable elderly (even those children who live far away) to promote preparedness.

4. Train and Prepare Appropriate Staff to Provide Psychological First Aid to Patients Arriving at the Hospital During, and Immediately After, a Disaster

Preparation and training should include methods of identifying and communicating with hearing, visually or cognitively impaired patients. Staff members should also be able to advise patients about resources, and refer them for mental health follow-up. Numerous resources and educational tools are provided below ([see Section 5, Resources, page 100](#)).

5. Hospitals Should Develop a Plan for Accommodating Families Who Are Distraught Over the Condition, Death or Disappearance of a Loved One

Hospitals should identify multidisciplinary staff, including psychologists, social workers, psychiatrists, clergy and others, to provide grief counseling and other forms of patient and caregiver emotional support ([see Section 5, Resources, Grief and Loss, page 100](#)). Hospitals should also devise methods for accommodating non-English-speaking patients and relatives through the use of staff translators, community volunteers and telephone translation services.¹⁹

6. In Coordination with Volunteer Departments, Hospitals Should Continuously Identify and Credential Mental Health Professionals to Volunteer in Professional Roles During a Disaster

Hospitals should also operationalize existing requirements for credentialing professional volunteers during a disaster ([see Section 6, Ethical and Legal Issues, page 105](#)).

TOOLS

Tool 5-1. Distinguishing Dementia from Delirium

It is not unusual for clinicians to assume that elderly patients with abnormal mental status have dementia; this may result in failure to recognize delirium,²⁰ which requires prompt medical attention. Providers should make efforts to ascertain the patient's baseline mental status upon arrival and to be aware of the clinical features that differentiate dementia from delirium

Tool 5-1. Distinguishing Dementia from Delirium	
Dementia	Delirium
Hallmark: memory loss	Hallmark: inattention and alteration in the state of consciousness
Loss of memory and higher intellectual function impairing social or occupational function, or both	A change in cognition, which may include memory deficits, that cannot be accounted for by pre-existing or evolving dementia
Usually progresses over years	Usually develops over hours or days
Except for a drug-induced dementia-like syndrome, a reversible component is rarely found	Very often reversible
Acute deterioration of stable cognitive dysfunction function generally indicates delirium superimposed on dementia, and becomes a medical emergency	A medical emergency

Tools 5-2 and 5-3. Agitation

Elderly patients with dementia and delirium often become agitated, but agitation in the hospital is often treated inappropriately, leading to serious but avoidable medical complications. The best approach is to seek and treat the cause of agitation, avoid mechanical restraints, and to consider nonpharmacologic management. Pharmacologic treatment of agitation may be necessary, but requires very cautious dosing, especially in the frail elderly.

Tool 5-2. Causes of Agitation

- Delirium ([see Section 3, Tool 3-5, Diagnosing and Managing Agitation in Hospitalized Patients who have Dementia or Delirium, page 48](#))
- Restraints
- Intrusive device
- Pain, dyspnea, or other physical symptoms
- Unfamiliar environment
- Someone the patient does not recognize attempts to feed, dress, or wash patient
- Fecal impaction
- Urinary retention (for reversible cause, see Tool 3-6 in Section 3, Clinical Care of Acutely Ill Elderly, on page XXX)
- Need for repositioning
- Need to get out of bed to urinate
- Sundown syndrome²¹

Tool 5-3. Managing Agitation in Patients with Dementia or Delirium

- Seek and address the underlying cause of agitation
- Avoid intrusive devices, such as bladder catheters, nasogastric tubes and others, if possible
- Avoid mechanical restraints, if possible
- Camouflage essential devices, such as intravenous lines, by covering them securely with gauze or other materials
- Utilize interpersonal methods (reassurance, distraction, and conversation with family, friends, or volunteers) whenever possible²²⁻²³
- When managing pharmacologically, use cautious, “geriatric-appropriate” doses ([see Section 5, Tool 5-6, Appropriate Dosing of Common Psychiatric Medications for Frail Elderly, page 94](#))
- Avoid benzodiazepines, except if indicated in specific withdrawal syndromes (e.g. alcohol or benzodiazepines) or if antipsychotic medications are contraindicated

Tools 5-4 through 5-6: Psychiatric Syndromes

Diagnostic Difficulties: Depression

Depression is very common in older adults. Severe symptoms usually occur in those with a previous history of clinical depression, whereas symptoms that begin later in life tend to be less severe and may be masked by somatic complaints. Aspects of geriatric depression are summarized in **Tool 5-4 immediately below.**

Tool 5-4. Features of Depression in the Elderly

- Patient may deny or fail to recognize depressive symptoms
- Patient may complain only of somatic symptoms
- Risk of suicide increases after age 60 years, especially in men
- Patient may not seek help from a mental health professional, including follow-up care when referred, because of:
 - Failure to recognize symptoms as depression
 - Stigma of depression as “mental illness”
 - Stigma of seeking psychiatric help
 - Failure of primary care provider to recognize and refer
 - Cost
- Features of antidepressant withdrawal syndrome:
 - Symptoms may include dizziness, gastrointestinal disturbance, or enhanced depression
 - Time to onset is unpredictable
 - Caused by inadequate adherence to medications or inability to access medications (such, as in a disaster)

Diagnostic Difficulties: Distinguishing Psychiatric Disease from Dementia

The high incidence of dementia in older populations complicates the diagnosis of other diseases that affect behavior and cognition. Depression, delirium or secondary features of dementia (such as delusions or hallucinations) may be superimposed on dementia, while in other cases, depression or delirium may be misdiagnosed as dementia.

Although there is some overlap in the management, it is important to distinguish chronic psychiatric disease from dementia so appropriate management can proceed. Common features of various syndromes as seen in elderly patients are summarized in **Tool 5-5**, immediately below.

Tool 5-5. Features that Distinguish Psychiatric Diseases and Dementia in Elderly Patients

Chronic or Existing Syndrome	Manifestations	Comments
Mild to Moderate Dementia	Mild – memory loss Moderate – confusion; agitation, hallucinations and delusions may also occur	Rule out delirium; depression may coexist; “pleasant” hallucinations and delusions that are not disturbing to patient do not require medication unless they interfere with essential care
Severe Dementia	Complete inability to engage in self care; superimposed delirium often produces stupor or coma	Evaluate for underlying cause of agitation; rule out delirium if there has been an abrupt change in mental status; prior psychotic symptoms due to dementia may wane, eliminating need for antipsychotics
Depression	Depressed mood and/or loss of pleasure for at least 2 weeks, with or without physical or cognitive symptoms; coping mechanisms vary; severe depression may mimic dementia	Rule out antidepressant withdrawal syndrome (e.g., because of loss of access to medication)
Anxiety Disorder	Enhanced anxiety	Rule out benzodiazepine or other prescription drug withdrawal (e.g. because of loss of access to medication)
Bipolar Disorder	Depression or mania (mania could manifest as enthusiastic involvement in disaster-related work); rule out lack of access to mood- stabilizing medication	Upper acceptable therapeutic limit of serum-lithium levels is generally lower in elderly patients ²⁴
Chronic Schizophrenia	Recurrence of illness; paranoia resulting in refusal of food, medications, or other care; hallucinations or delusions	“Pleasant” delusions or hallucinations do not require medication unless they interfere with essential care

Tool 5-5. Cont'd

Chronic or Existing Syndrome	Chronic or Existing Syndrome	Chronic or Existing Syndrome
Alcoholism	Withdrawal syndrome resulting from lack of access to alcohol; intoxication because of binge drinking; there is a risk of increased use during or following a disaster, especially in individuals with a history of alcohol misuse	Treatment with benzodiazepines requires frequent re-evaluation to avoid oversedation; lorazepam (Ativan) is preferable to chlordiazepoxide (Librium)

Management: Psychiatric Medications in the Elderly

Adverse drug reactions occur at a higher rate among the elderly compared with all other age groups.²⁸ Psychiatric drugs frequently cause over-sedation, confusion and falls, and must be prescribed very conservatively in the elderly, especially those with underlying dementia, gait disorders, or a tendency to fall.

When pharmacologic management is needed, cautious dosing is essential; dosing guidelines are summarized in **Tool 5-6**, immediately below.

Tool 5-6. Appropriate Dosing of Common Psychiatric Medications for Frail Elderly

Antipsychotic Drugs for Secondary Symptoms * of Dementia			
Medication	Initial Dose	Average Daily Maintenance Dose **	Side Effects
Risperidone (Risperdal [®])	0.25-0.5 mg once daily	1- 1.5 mg	Somnolence; gait disturbance; hypotension (increased stroke risk)
Olanzapine (Zyprexa [®])	2.5 - 5 mg once daily	5 mg	Weight gain; glucose intolerance
Quetiapine (Seroquel [®])	25 -50 mg once daily	100-200 mg	Somnolence; less likely than other agents (except clozapine) to worsen parkinsonian symptoms in Parkinson's disease or Lewy body dementia
Haloperidol (Haldol [®])	0.25-0.5 mg	1-2 mg	Extrapyramidal side effects common, especially stiffness and gait disturbance; contraindicated in Parkinson's disease and Lewy body dementia
Clozapine (Clozaril [®])	12.5 mg b.i.d.	Titrate according to symptoms	Agranulocytosis occurs rarely but requires laboratory monitoring (white blood cell and absolute neutrophil count); unlikely to worsen parkinsonian symptoms and generally should be reserved for patients with Parkinson's disease or Lewy body dementia

Antipsychotic Drugs for Secondary Symptoms * of Dementia (Cont'd)			
Average Daily Maintenance Dose **	Average Daily Maintenance Dose **	Average Daily Maintenance Dose **	Average Daily Maintenance Dose **
Aripiprazole (Abilify®)	5-10 mg	15-20 mg	Less likely to cause somnolence than other atypicals; little extrapyramidal effect or weight gain

* “The term “secondary symptoms” refers to behavioral problems, agitation, delusions, and hallucinations**Doses often lower in frail elderly, especially those 85 and older

Note: Use of antipsychotics in dementia, though “off-label” (not an FDA- approved indication), is common and widely accepted within the medical community, although evidence does not uniformly support its efficacy.^{22-23, 30} Because of the possible increased risk of adverse outcomes, including stroke and cardiac problems for some of the above medications, caution has been recommended.²⁹ Cautious dosing, liberal use of nonpharmacologic management,^{22-23, 30} and attention to cerebrovascular and cardiovascular risk factors (such as hypertension, atrial fibrillation, and others), would be expected to minimize adverse outcomes. As an alternative for management of agitation, antidepressant trazodone (starting dose ≤ 25 mg) may be effective . For further reading on management of dementia,³¹ visit http://www.aagponline.org/prof/position_caredmnlz.asp For nonpharmacologic approaches to treatment of agitation, [see Section 5, Tool 5-3, Managing Agitation in Patients with Dementia or Delirium, page 91.](#)

Antipsychotic Drugs for Secondary Symptoms * of Dementia			
Average Daily Maintenance Dose **	Average Daily Maintenance Dose **	Average Daily Maintenance Dose **	Average Daily Maintenance Dose **
Selective Serotonin Reuptake Inhibitors (SSRIs)		Most forms of unipolar depression	Generally well-tolerated in elderly individuals
· Sertraline (Zoloft®)	50-100 mg		
· Escitalopram (Lexapro®)	10 mg		
· Citalopram (Celexa®)	20 mg		
Bupropion (Wellbutrin®)	100-150 mg per day in extended-release form	Activating; good for patient with prominent vegetative symptoms or those quitting smoking	Generally well- tolerated in elderly; may cause insomnia
Mirtazapine (Remeron®)	15-30 mg	Sedating; good choice for patients with agitated depression, insomnia, or anorexia	Avoid over-sedation

Antipsychotic Drugs for Secondary Symptoms * of Dementia (Cont'd)			
Average Daily Maintenance Dose **	Average Daily Maintenance Dose **	Average Daily Maintenance Dose **	Average Daily Maintenance Dose **
Norepinephrine and Serotonin Reuptake Inhibitors (NSRIs) · Venlafaxine (Effexor®) · Duloxetine (Cymbalta®)	150 mg in extended- release form 60 mg	Second line; use if patient has poor response to other agents or if concurrent treatment of neuropathic pain needed	Generally well-tolerated in elderly; may raise blood pressure in high doses
Psychostimulants · Methylphenidate (Ritalin®) · Dextroamphetamine	5 mg once or twice a day 2.5-5 mg once or twice a day	Useful for apathetic patients, especially if rapid effect desired	May cause anorexia or insomnia; best given early in the day
Tricyclic antidepressants (TCAs)	Generally should avoid in elderly** because of problematic anticholinergic side effects and cardiac-conduction abnormalities; nortriptyline and desipramine (starting doses ≤10-25 mg) have less prominent anticholinergic action within TCA group and are preferred if non-TCA is ineffective or cannot be used		May precipitate or worsen dementia; may cause urinary retention, especially in older men; contraindicated in narrow-angle glaucoma
*Starting doses are lower, and smaller, maintenance doses are often effective. **A patient who has been taking a tricyclic antidepressant but cannot obtain it in an emergency could be started on SSRI, NSRI, or bupropion, if appropriate.			

Tool 5-7. Pre-Disaster Planning: The GeriGoBag

Elderly patients should be encouraged to prepare a carrier in which to carry vital medications, personal items, and basic personal and medical information. The GeriGoBag should be an attachable waist or fanny pack, and have a Velcro or buckle attachment strap to affix to the person, wheelchair or bed to ensure secure transfer of these items to and from the hospital, and during hospitalization. The bag should be kept in an easy-to-remember and accessible location at home in case of emergency.

Tool 5-7. Pre-Disaster Planning: The GeriGoBag

- Waist or fanny bag with buckle or Velcro strap attached to person's waist, wheelchair, or hospital bed to ensure transfer of contents during transport and hospitalization
- Needed small equipment
- Minimum 4-day supply of regular medications, labeled to identify individual pills
- Maximum 1-page medical history (possibly on index card) that includes:
 - Description of baseline mental and physical status
 - Conditions for which currently under treatment
 - Pertinent past illnesses
 - List of current medications and doses
- Personal identification, including:
 - Name, address, phone number
 - Copy of insurance card(s)
 - Contact information for physicians(s), pharmacy, local and distant family or caregiver(s)
 - Copy of advance directive (proxy or living will)
 - Copy of non-hospital do-not-resuscitate order if pertinent and other pertinent information if the patient is cognitively impaired
- Hearing aid and extra batteries
- Extra dentures or denture case
- Extra eyeglasses with eyeglass chain or lanyard in a hard eyeglass case
- A pair of warm socks
- Face mask

REFERENCES

1. Gusmano MK, Hodgson MG, Tobier E. International Longevity Center. Issue Brief: Old and Poor in New York City. September-October 2002.
<http://www.ilcusa.org/lib/pdf/b20021121a.pdf> (last visited November 2, 2006).
2. Caring for Seniors in a National Emergency: Can We Do Better? U.S. Special Senate Committee on Aging (testimony of Jean Cefalu, R.N.)
http://aging.senate.gov/hearing_detail.cfm?id=270708&
Accessed October 15, 2009.
3. Norris FH, Friedman MJ, Watson PJ. 60,000 disaster victims speak: Part II. Summary and implications of the disaster mental health research. *Psychiatry* 2002 Fall; 65:240-260.
4. Hebert LE, Scherr PA, Beckett LA. Age-specific incidence of Alzheimer's disease in a community population. *JAMA* 1995; 273:1354-1359.
5. Alzheimer's Association. Dementia in nursing home. Alzheimer's Disease Facts and Figures, 2007. http://www.alz.org/national/documents/Report_2007FactsAndFigures.pdf
6. Petersen RC, Stevens JC, Ganguli M, et al. Practice parameter: Early detection of dementia: Mild cognitive impairment (an evidence-based review). Report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology* 2001; 56: 1133-1142.
7. American Association for Geriatric Psychiatry Fact Sheets.
http://www.aagponline.org/prof/facts_mh.asp
8. Williams JW, Noel PH, Cordes JA, et al. Is the patient clinically depressed? *JAMA* 2002; 287:1160-70.
9. Gallo JJ. Depression without sadness: alternative presentations of depression in late life. *American Family Physician* 1999; 60: 820-6.
10. Lebowitz, B.D., Pearson, J.L., Schneider, L.S., et al. Diagnosis and treatment of depression in late life. Consensus statement update. *JAMA* 1997; 278: 1186-1190.
11. Cohen CI, Vahia I, Reyes P, et al. Schizophrenia in Later Life: Clinical Symptoms and Social Well-being, *Psychiatric Services* 2008. In press.
12. Vahia IV, Cohen CI. Geriatric Psychiatry: Schizophrenia and Delusional Disorders. In: Sadock BJ, Sadock VA, Kaplan & Sadock's Comprehensive Textbook of Psychiatry. Lippincott, Williams and Wilkins, 8th ed. In press.
13. Fink, A, Hays, RD, Moore, AA, et al. Alcohol-related problems in older persons: determinants, consequences and screening. *Arch Intern Med* 1996; 156:1150-1156.

14. Zautcke JL, Coker SB, Morris RW, et al. Geriatric trauma in the state of Illinois: Substance use and injury patterns. *Am J Emerg Med* 2002; 20:14-17.
15. Conigliaro J, Kraemer K, McNeil M. Screening and identification of older adults with alcohol problems in primary care. *Journal of Geriatric Psychiatry and Neurology* 2000; 13:106-114.
16. Boscarino JA, Adams RE, Galea S. Alcohol use in New York after the terrorist attacks: a study of the effects of psychological trauma on drinking behavior. *Addict Behav* 2006; 31:606-21.
17. Centers for Disease Control. Web-Based Injury Statistics Query and Reporting System. <http://www.cdc.gov/ncipc/wisqars/> (last visited June 29, 2008).
18. Chan SM, Chiu FK, Lam CW, et al. Elderly suicide and the 2003 SARS epidemic in Hong Kong. *Int J Geriatr Psychiatry* 2006; 21:113-118.
19. Kelly N. The voice on the other end of the phone. *Health Affairs* 2008; 27:1701-1706. Available at: <http://imiaweb.org/uploads/pages/307.pdf> (last visited February 23, 2009).
20. Lewis LM, Miller DK, Morley JE, et al. Unrecognized delirium in ED geriatric patients. *Am J Emerg Med*. 1995;13:142-145.
21. Volicer L, Harper DG, Manning B.C, et al. Sundowning and circadian rhythms in Alzheimer's disease. *American Journal of Psychiatry* 2001; 158: 704-711.
22. Fossey J, Ballard C, Juszczak E, et al. Effect of enhanced psychosocial care on antipsychotic use in nursing home residents with severe dementia: cluster randomised trial. *British Medical Journal* 2006; 332:756-61.
<http://www.bmj.com/cgi/content/full/332/7544/756?ijkey=58201d19f3a69eee3dc13eb4eh02240ba0a8448d23>
23. Alexopoulos GS, Jeste DV, Chung H, et al. Treatment of dementia and its behavioral disturbances: consensus panel. *Postgrad Med* 2005 Jan; Spec No.6-22.
24. Sproule BA, Hardy BG, Shulman KI. Differential pharmacokinetics of lithium in elderly patients. *Drugs Aging* 2000; 16:165-177.
25. Budnitz DS, Pollock DA, Weidenbach KN, et al. National surveillance of emergency department visits for outpatient adverse drug events. *JAMA*. 2006; 296:1858-66.
26. Sink KM, Holden KF, Yaffe K. Pharmacologic treatment of neuropsychiatric symptoms of dementia: a review of the evidence. *JAMA* 2005; 293:596-608.
27. Kurlan R, Cummings J, Raman R, et al. Quetiapine for agitation or psychosis in patients with dementia and parkinsonism. *Neurology* 2007; 68:1356-1363.
28. Sultzer DL, Gray KF, Gunay I, et al. A double-blind comparison of trazodone and haloperidol for treatment of agitation in patients with dementia. *Am J Geriatr Psychiatry* 1997; 5:60-69.

29. American Association for Geriatric Psychiatry. Comment on the U.S. Food and Drug Administration's (FDA) Advisory on Off-Label Use of Atypical Antipsychotics in the Elderly. Comment Date: July 13, 2005.

http://www.aagponline.org/prof/antipsychstat_0705.asp (last visited December 22, 2007).

30. Burke JR, Morgenlander JC. Managing common behavioral problems in dementia. Postgraduate Medicine 1999; 106:131-140.

31. American Association for Geriatric Psychiatry. AAGP Position Statement: Principles of Care for Patients with Dementia Resulting from Alzheimer Disease.

http://www.aagponline.org/prof/position_caredmnalz.asp

RESOURCES

COURSES

The Consortium of New York Geriatric Education Centers Geriatric Emergency Preparedness Certificate Program

This is a 40-hour course available in a flexible, staggered schedule in several New York City and other New York State locations. It is designed for health professionals of all disciplines and taught by multidisciplinary faculty. It includes substantial coverage of mental health issues.

www.nygec.org

GENERAL TEACHING TOOLS IN DISASTER PSYCHIATRY AND MENTAL HEALTH

New York City Department of Health and Mental Hygiene Mental Health Disaster Preparedness

Set of fact sheets prepared by the New York City Department of Health and Mental Hygiene and designed to assist providers and others in dealing with mental health issues that arise during and immediately after a disaster. Topics include information for disaster responders, post traumatic stress disorder (PTSD), seeking help after exposure to a traumatic event, and providing psychological first aid.

<http://www.nyc.gov/html/doh/html/mhdpr/mhdpr-fact.shtml>

Other fact sheets available at:

<http://www.nyc.gov/html/doh/downloads/pdf/mhdpr/mhdpr-pfa.pdf>

GRIEF AND LOSS RESOURCES

American Association of Retired Persons (AARP)

This organization offers print publications on grief and loss, and maintains a message board and other online resources.

http://www.aarp.org/families/grief_loss/

AARP's Widowed Persons Service Programs

These programs offer one-on-one support to the newly widowed provided by trained peer volunteers. Information on local chapters available at:

Widowed Persons Service

AARP

601 E Street, N.W.

Washington, D.C. 20049

Telephone: 1-202-434-2260

CRISIS HOTLINES FOR PATIENTS AND CAREGIVERS

Mental Health Association of New York City and the New York City Department of Health and Mental Hygiene

1-800-LIFENET (1 800 543-3638)

This is a 24/7 helpline for people dealing with a crisis, operated by the Mental Health Association of New York City and the New York City Department of Health and Mental Hygiene. The helpline is staffed by mental health professionals and linked with mobile crisis teams. Also available in Spanish (1-877-AYUDESE; 1-877-298 3373) and Chinese and Korean dialects (1-877 990 8585).

National Suicide Prevention Lifeline

Telephone: 1-800-273 TALK (1-800-273-8255)

Alzheimer's Association

Professionals provide 24/7 phone consultation and referral for crisis assistance for patients with Alzheimer's disease and other dementias. Multilingual service is available. Tel. (800) 272-3900

www.alz.org/index.asp

Organization also administers MedicAlert + Safe Return program, which provides access to medical information while assisting in reuniting people with dementia who have wandered from home to reunite with family or other caregivers.

www.alz.org/we_can_help_medicalert_safereturn.asp

GERIATRICS DISASTER MENTAL HEALTH RESOURCES FOR PROFESSIONALS

Substance Abuse and Mental Health Services Administration (SAMHSA)

Psychosocial Issues for Older Adults in Disasters.

Online and print manual with guidance for service providers and others on the appropriate response to the needs of older adults during a disaster.

<http://download.ncadi.samhsa.gov/ken/pdf/SMA99-3323/99-821.pdf>

Medical Reserve Corps, National Child Traumatic Stress Network and National Center for PTSD

Psychological First Aid: Field Operations Guide

This online manual offers comprehensive guidance on the use of psychological support for patients of all ages, families, caregivers and disaster- relief workers.

www.medicalreservecorps.gov/File/MRC_Resources/MRC_PFA.doc

Disaster Psychiatry Outreach Downloads

Draft for Comment

New York City Department of Health and Mental Hygiene

Numerous training tools from Disaster Psychiatry Outreach, a professional organization of psychiatrists devoted to mental health care in disasters.

<http://sites.google.com/a/disasterpsych.org/blog/File-Cabinet>

Consortium for Risk and Crisis Communication and New York City Department of Health and Mental Hygiene

Communicating in a Health Emergency: Crisis Communications Guide

Booklet to assist professionals and trainees communicate with patients, family members, fellow employees and the community during a disaster.

www.nyc.gov/html/doh/downloads/pdf/bt/comm-health-emergency-guide.pdf

**American Psychiatric Association, Committee on Psychiatric Dimensions of Disaster
Disaster Psychiatry Handbook**

<http://www.psych.org/disasterpsych/pdfs/apadisasterhandbk.pdf>

New York Disaster Interfaith Services (NYDIS)

Manual for New York City Religious Leaders: Spiritual Care and Mental Health for Disaster Response and Recovery

This manual provides guidance for spiritual-care leaders and their roles during a disaster as well as available resources on providing support for their congregations and the community.

www.nydis.org/resources/headlines/2007_09_24.php#Chapters

**DISASTER PREPAREDNESS RESOURCES FOR SENIORS, THEIR ADULT CHILDREN
AND OTHER CAREGIVERS**

**New York City Department for the Aging and the Office of Emergency
Management**

Ready New York

This consumer-friendly, pamphlet helps the general public prepare for disasters. Also available in Spanish, Russian, and Chinese.

http://www.nyc.gov/html/dfta/downloads/pdf/seniors_disabilities_english.pdf

http://www.nyc.gov/html/oem/downloads/pdf/household_guide.pdf

To obtain audiotape version, call 311 (in New York City only)

American Red Cross

Disaster Preparedness for Seniors by Seniors

Personal Emergency Preparedness Checklist for People with Disabilities

Concise sets of recommendations with checklists.

<http://www.redcross.org/services/disaster/beprepared/seniors.html>

<http://www.redcross.org/services/disaster/beprepared/checklist.html>

Centers for Disease Control and Prevention

Be Informed: Maintain a Healthy State of Mind

For seniors:

<http://www.bt.cdc.gov/preparedness/mind/seniors/>

For other Adults:

<http://www.bt.cdc.gov/preparedness/mind/adults/>

**National Institute on Aging,
Getting your Affairs in Order**

Brochure with useful information, list of resources, and links.

www.nia.nih.gov/HealthInformation/Publications/affairs.htm

EMERGENCY PET PREPAREDNESS BROCHURES AND GUIDANCE

**New York City Office of Emergency Management
Ready New York for Pets**

Downloadable brochure providing guidance on emergency pet preparedness.

www.nyc.gov/html/oem/downloads/pdf/pets_english.pdf

Tel 311 (in New York City)

(212) 504-4115 (outside New York City)

**American Red Cross of Greater New York
Disaster Safety Guide for Pets**

Evacuation guidelines and other useful information helpful during and after a disaster.

<http://www.nyredcross.org/page.php/prmID/480>. Accessed February 28, 2009.

Tel. (877) REDCROSS

PROFESSIONAL AND NONPROFIT ORGANIZATIONS

American Association for Geriatric Psychiatry

Professional association of geropsychiatrists, includes useful links.

www.aagponline.org

Disaster Psychiatry Outreach

Provides education and training in disaster mental health to professionals and health care organizations and maintains a data base of psychiatrists certified in disaster psychiatry who are able to train others and to volunteer during disasters.

www.disasterpsych.org Accessed February 28, 2009.

Geriatric Mental Health Foundation.

Established by American Association for Geriatric Psychiatry; includes online search tool to locate member practicing geriatric psychiatrists

www.gmhfonline.org/gmh/ Accessed February 28, 2009.

NY Disaster Interfaith Services (NYDIS)

Faith-based coalition of charitable organizations and service providers that offers education, training, advocacy, and programs focused on disaster preparedness, response and recovery.

www.nydis.org

Disaster Chaplaincy Services

Non-sectarian organization that recruits, screens and trains chaplains to participate in interdisciplinary care during disasters in New York City and the tri-state region.

www.disasterchaplaincy.org

Health Care Chaplaincy

This multifaith organization is devoted to education, research and clinical chaplaincy services, as well as consultation for organizations in developing or enhancing pastoral-care programs.

www.healthcarechaplaincy.org

Tel. (212) 644-1111

REUSABLE HEARING AIDS

Various models of pocket hearing aids can be purchased online from \$20 to more than \$200. These products consist of a pocket size microphone connected to earphones to be used while interviewing or examining a severely hearing impaired patient who does not have a hearing aid.

SECTION 6. ETHICAL AND LEGAL ISSUES

PURPOSE

This section provides ethical and legal guidance for hospital administrators, clinical departments, clinicians, ethics committees, attorneys and other professionals in addressing and resolving ethical dilemmas during disasters. Certain sections are specifically geared toward issues about elderly inpatients and others apply to adult patients of any age.

BACKGROUND

The Ethical Duty to Plan

Just as effective emergency response requires forethought and careful planning, ethical issues must be discussed and planned for before a disaster strikes.¹ Health care providers and communities may be forced to confront many ethical dilemmas in a disaster, such as allocation of scarce resources and the accompanying life and death decisions, loss of personal autonomy, and providers' reluctance to work in the face of personal risk.

Resolving ethical dilemmas is an ongoing and, at times, contentious process. Although there are no "right answers" to many ethical questions, discussions should center on arriving at a reasonable consensus. The duty to plan for a disaster, therefore, encompasses more than organizing resources, supplies and infrastructure—it also requires finding appropriate ways to deal with ethical dilemmas in advance.

Limited Resources, Age Discrimination, and the Need to Individualize Care

Although few commentators have suggested that age might sometimes be an appropriate criterion for allocating medical resources,²⁻³ informal age discrimination most likely occurs in the clinical setting.⁴ Resources such as medications, technical tools and staff may all be scarce during a disaster, intensifying a tendency to discriminate against older patients.

Chronological age is a poor indicator of biological wellness. Many very old people are fit and live successfully on their own, and many younger individuals have serious illnesses or disabilities. Providers must therefore make individualized decisions about how to provide care to each person. Clinical approaches to evaluating elderly patients are discussed in detail in [Section 3, Clinical Care of Acutely Ill Elderly Patients, page 42](#).

Understanding New York State Laws Governing Life-Sustaining Treatment

Many elderly people lack decisional capacity, the ability to weigh the risks versus the benefits of treatments, and make decisions about them. In such cases, providers can honor patients' wishes by following advance directives (verbal or written instructions that patients have given in advance of losing decisional capacity).

In cases of whether or not to initiate cardiopulmonary resuscitation (CPR), New York State law specifies a hierarchy of surrogate decision-makers who can authorize an order not to resuscitate on behalf of an incapacitated patient; however, the law sets stringent

standards for refusal of other life-sustaining treatments, such as ventilators or feeding tubes. Unfortunately, some institutions have established policies that are even more stringent than the law, for example, requiring written evidence of a patient's wishes, which, though desirable, is not required under New York State law.⁵

During a disaster, when scarce resources could create serious ethical dilemmas, there may be circumstances when autonomous decision making will be severely limited, even for patients who have capacity, so at a minimum the law needs to be correctly interpreted. When patients cannot obtain (or refuse) treatments, alternatives to unavailable resources should be sought and offered ([see Section 7, Palliative Care, page 119](#)).

Basing Decisions on Sound Diagnoses

Triage, resource allocation and ethical decision-making rely on making an accurate diagnosis. Many diseases present atypically in the elderly,⁶ and misdiagnosis may occur ([see Section 3, Clinical Care of Acutely Ill Elderly Patients, page 42](#)). Furthermore, although advanced age worsens prognoses for many serious diseases and conditions,⁷⁻⁹ in other circumstances comorbidities rather than age determine outcome.¹⁰ In cases of emergency surgery, mortality is often higher in the elderly because of delay in diagnosis rather than the surgery itself.⁹

Uncertainties about Prognosis: Late-Stage Dementia as a Paradigm

Dementia is a major cause of death in people over 75 and, although the average life expectancy of elderly patients with severe dementia is 6 months or less,¹¹⁻¹² many clinicians do not perceive this disease as terminal, and fail to recommend palliative or hospice care for such patients. This is of particular relevance in a disaster setting if individuals with late-stage dementia from the community or from nursing homes present to hospital emergency departments.

Current standards for ventilator allocation take into account serious and end-stage illnesses.¹³⁻¹⁴ The New York State Task Force on Life and the Law has set forth specific medical exclusion criteria for ventilator use, which include, among other things, severe, irreversible neurologic conditions with high expected mortality¹⁴ ([see Section 1, Tool 1-4, New York State Task Force on Life and the Law Draft Guidelines: Modified Exclusion Criteria for Ventilator Access, page 25](#)). According to standard diagnostic criteria, advanced and end-stage dementia would fall under that criterion, as discussed elsewhere in this document ([see Section 7, Tool 7-3, Dementia Stage and Failure to Eat, page 127](#)).

Because prognosis is never an exact science, health professionals must be prepared to make medical recommendations in the midst of uncertainty, and be able to help families and other loved ones in dealing with death.

Ethical Dilemmas in Withdrawing Ventilator Support

According to the New York State Task Force draft guidelines on ventilator allocation, patients who fail to meet rationing criteria could be taken off ventilators. The Guidelines therefore emphasize the need for transparency and flexibility, given the serious concerns that such withdrawal raises among families, health care providers and others.¹⁴

Withdrawing life-sustaining treatment is subject to the same legal standards as

withholding it, and there is a general consensus among ethicists that the two actions are morally indistinguishable (i.e., are subject to the same ethical standards, such as taking into consideration a patient's current or previously expressed wishes).¹⁵⁻¹⁶ Other ethical concerns are bound to be raised if providers were faced with the dilemma during a disaster of having to remove a ventilator from one person to provide it for another.¹⁷

These and other issues are not easy to resolve, but they highlight the need for hospitals and their staffs to discuss such dilemmas before a disaster occurs. The medical aspects of ventilator withdrawal are discussed in [Section 7, Palliative Care, page 119](#).

The Role of Palliative Care

When decisions are made to withhold or withdraw life-sustaining treatment, patients must be kept as comfortable as possible. Palliative care involves **active** management to relieve physical and psychological suffering, and is not intended to hasten death.¹⁸⁻¹⁹

Palliative care is an adjunct, and not an alternative to, medical care; therefore, medical care and palliative care are not mutually exclusive, even in the intensive care unit. Guidelines for palliative care during a disaster are described in [Section 7, Palliative Care, page 119](#)).

Maximizing Personnel by Use of Volunteers

Health care providers, especially those experienced in providing geriatric care, may be in short supply during a disaster and may not be available—risks posed by a deadly epidemic or other disaster might be met with a less enthusiastic response than that demonstrated by clinicians during the September 11, 2001 terrorist attacks, the NYC blackout, and Hurricane Katrina.²⁰⁻²¹

Fear of becoming ill; the need to care for a child, elderly, or sick family member; or the inability to report to work because of illness or disruptions in transportation might also reduce staff (all of which have been cited as concerns by health care workers in NYC).²⁰ In times of staff shortages, volunteers may be and can serve as an important source of help.

Specific programs exist in New York that would augment staff in a disaster, including the NYC Medical Reserve Corps (MRC) and the New York State Health Emergency Volunteer Program ([see Section 6, Resources, page 115](#)). Other government and private entities may also be able to supply volunteers during such a time.²²⁻²³

Of particular concern to geriatric care is the need to augment basic care, which could be provided by non-clinical volunteers. Unfortunately, current hospital policies about what volunteers are allowed to do may be overly restrictive when it comes to an extraordinary situation (for example, many hospitals do not permit non-clinical volunteers, even under ordinary circumstances, to provide direct, though basic, patient services such as feeding, cleaning).

The disaster privileging standards of the Joint Commission (formerly, the Joint Commission on Accreditation of Healthcare Organizations) delineate a rapid procedure for granting disaster privileges to clinical providers who are unaffiliated with the host

hospital, specifically, those providers who are required by law or regulation to have a license, certification, or registration.²⁴ Credentialing for other kinds of volunteers would be covered by existing, non-emergency standards, a more time-consuming process that is best completed before an emergency.

Liability Concerns during a Disaster

Liability for negligence (malpractice). Health care providers are likely to have concerns about liability when dealing with shortages in equipment, personnel and other vital resources during a disaster. These concerns may become exacerbated when managing patients who might have high death rates, such as the elderly, or when providing treatment in unfamiliar clinical situations, or performing procedures not typical for the provider.

Liability protection for volunteers exists in local programs administered by the government,²⁵⁻²⁶ as well as under certain federal and interstate initiatives, such as the Emergency Management Assistance Compact.²⁷ Legal guidance regarding liability protection is available for hospitals, as delineated in the Resources ([see Section 6, Resources, New York City Department of Health and Mental Hygiene, Legal Issues and Hospital Response during a Disaster, page 115](#) and [Greater New York Hospital Association, Using Volunteers during a Disaster, page 115](#))

Criminal liability and standards of care in extraordinary situations. In addition to concerns about routine medical malpractice, providers may worry about the risk of more serious liability, including criminal liability (for example, the case after Hurricane Katrina involving a physician who risked her life to save patients yet was charged with homicide.)²⁸⁻²⁹ Most states that provide liability protection in a disaster specifically exempt “gross negligence” or “criminal misconduct” from protection.³⁰ Such exceptions also exist under certain circumstances in New York State, for example, under liability protection for volunteers who have been deployed by the NYC Medical Reserve Corps²⁵ or NY State Health Emergency Volunteer Program.²⁶

A grand jury declined to indict the New Orleans physician in her actions of providing sedation to ventilator-dependent patients and found insufficient evidence to support the charges.³¹ The situation, however, not only raised health care providers’ concerns but also raises the question of whether normal care standards of care should apply in a disaster.²⁹

Although liability and immunity are legal issues, the Joint Commission standards for emergency management recognize the range of extraordinary circumstances that confront health care providers during disasters. While guidelines do not lower the standard of care during these events, they account for the possibility that a stand-alone hospital might not be able to provide sufficient resources in a disaster. The Commission requires hospitals to plan to function independently for 96 hours (while not specifically requiring a 96-hour stockpile of supplies) and to include procedures such as “maintaining or expanding services, conserving resources, curtailing services, supplementing resources from outside the local community, closing the hospital to new patients, [and] staged [or] total

evacuation.”²⁴ Thus, in extraordinary circumstances, responsibilities for care would shift from the hospital alone to the population at large.

The Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule

Health care providers responding to disasters may also be concerned about the difficulty of maintaining the privacy requirements stipulated by HIPAA. In a disaster, it may be impossible or impractical to obtain permission to share private, legally-protected health information. Even under normal circumstance, providers often misunderstand and hospitals often have overly-stringent interpretations of HIPAA regulations.³²⁻³⁴

Although HIPAA guidelines are intended to apply during a disaster, exceptions to the privacy rule exist and may be applicable under many, if not most, circumstances arising during a public health emergency.³⁵⁻³⁶ The U.S. Department of Health and Human Services Office for Civil Rights has provided guidance for HIPAA’s use in both emergency preparedness³⁷ and during disasters or other emergencies³⁸ Guidelines for application of HIPAA in a disaster are covered in the Resources below, in this Section on page XXX.

PLANNING GUIDELINES

1. Prepare to Operationalize Proposed New York State Life and the Law Proposed Guidelines on Ventilator Allocation

Hospital administrators, clinicians, ethics committees, attorneys and other professionals should become familiar with and plan to use these guidelines, which are in draft form and available for comment. The document covers issues such as the appointment and responsibilities of triage officers, documentation of triage decisions, exclusion criteria for ventilators, and other relevant issues. The document also includes rationale and commentary ([see Section 1, Tool 1-4, New York State Task Force on Life and the Law Draft Guidelines: Modified Exclusion Criteria for Ventilator Access, page 25](#)).

2. Provide Regular and Up-to-Date Trainings

Administrators, health care providers, attorneys and related personnel should receive training on ethical issues and legal guidelines surrounding public health emergencies. Numerous training resources are available ([see Section 6, Resources, page 115](#)). Hospital ethics committees and other institutional or outside sources of expertise can also be tapped for training, which should address the following issues:

- State laws on medical decision-making, including the use of oral and written advance directives, decision making by authorized surrogates, and how to make decisions for patients whose wishes are unknown
- Correct application of Do-Not- Resuscitate (DNR) orders, including non-hospital DNR orders created before the patient presents at the hospital
- Legal protections for hospital personnel who provide care in a disaster
- Legal standards for the use and deployment of volunteers in a disaster
- Application of the Health Insurance Portability and Accountability Act (HIPAA) privacy rule in disasters

- Clinical determination of a patient's ability to make health care decisions ([see Section 6, Tool 6-1, Determining a Patient's Decisional Capacity, page 111](#)).
- Promotion of palliative care as a proactive adjunct to medical care
- Palliative care in a range of life-threatening and terminal diseases, including advanced dementia

3. Consider Using Non-Clinical Volunteers to Augment Staff

In addition to enacting disaster-privileging standards for outside clinicians as volunteers ([see Section 6, Resources, Using Volunteers and Sharing Personnel, page 115](#)), hospitals should also consider the use of non-clinical volunteers, especially those who reside in the nearby community, or nonclinical hospital staff, to assist professional staff during a disaster. Such individuals should be identified, prescreened and trained on an ongoing basis, before a disaster strikes.

4. Identify Palliative Care Expertise within the Institution

Hospitals should include one or more clinicians from this field with expertise in palliative care on their Emergency Preparedness Committees ([see Section 7, Palliative Care, page 119](#)).

TOOLS

Tool 6-1. Determining Decisional Capacity

Patients who lack the capacity to make health care decisions must rely on others to make decisions for them. Sometimes capacity or lack of capacity is obvious but in many cases it is not. It is up to the clinician to determine that a patient lacks capacity before allowing another person to decide, or to utilize information that the patient provided in an advance directive.

TOOL 6-1. Determining a Patient's Decisional Capacity

Protocol: Determine, by interview, whether the patient:

- Understands the risks, benefits, alternatives and outcomes of the proposed intervention AND
- Can make a reasoned decision AND
- Can communicate a stable decision

Understand that Decisional Capacity:

- **Is not** specific to the disease
- **Is not** determined by scores on mental status tests
- **Is not** determined in a court of law
- **Is** specific to the decision at hand
- **Is** specific to the patient
- **Is** a clinical determination by a physician
- **May be** preserved in the early stages of dementia

Be aware of the following when obtaining informed consent:

- Information provided to the patient must be accurate
- Information provided to the patient must be understandable
- Patient quirkiness does not mean incapacity
- Patients may communicate verbally, in writing or by any other reasonable methods (e.g. sign language, letter-by-letter communication)
- Consultation by an experienced psychiatrist is recommended in patients with depression or schizophrenia

REFERENCES

1. Berlinger N, Moses J, for the Hastings Center. Bioethics Backgrounder: Ethical decision making during an influenza pandemic. www.thehastingscenter.org. Accessed December 10, 2007.
2. Callahan, D. Setting limits: Medical goals in an aging society. Touchstone, Simon & Schuster, New York: 1987.
3. Williams A. Intergenerational equity. An exploration of the “Fair Innings” argument. *Health Economics* 1997; 6:117-132.
4. Kane RL, Priester R, Neumann D . Does disparity in the way disabled older adults are treated imply ageism? *The Gerontologist* 2007; 47:271-279.
5. Matter of Westchester County Medical Center on Behalf of O’Connor. 72 N.Y.2d 517, 531-532, 1988.
6. Jarrett PG, Rockwood K, Carver D. Illness presentation in elderly patients. *Archives of Internal Medicine* 1995; 155:1060-1064.
7. Thompson WW, Shay DK, Weintraub E, et al. Influenza-associated hospitalizations in the United States. *JAMA* 2004; 292:1333-1340.
8. Smith DL, Cairns BA, Ramadan F, et al. Effect of inhalation injury, burn size, and age on mortality: a study of 1447 consecutive burn patients. *J Trauma* 1994; 37:655-9.
9. Keller SM, Markovitz LJ, Wilder JR, et al. Emergency and elective surgery in patients over age 70. *The American Surgeon* 1987, 53: 636-640.
10. Thomas DR, Ritchie CS. Preoperative assessment of older adults. *Journal of the American Geriatrics Society* 1995; 48: 811-821.
11. Meier DE, Ahronheim JC, Morris J, Baskin-Lyons S, Morrison RS. High short-term mortality in hospitalized patients with advanced dementia: lack of benefit of tube-feeding. *Archives of Internal Medicine* 2001; 161: 594-599.
12. Christakis N, Escarce JJ. Survival of Medicare patients after enrollment in hospice programs. *New England Journal of Medicine* 1996; 335:172-178.
13. Ontario Health Plan for an Influenza Pandemic (OHPiP). http://www.health.gov.on.ca/english/providers/program/emu/pan_flu/ohpip2/plan_full.pdf. Accessed February 25, 2008.
14. New York State Department of Health/New York State Task Force on Life and the Law. New York State Workgroup on Ventilator Allocation in an Influenza Pandemic: Planning Document – Draft for public comment, March 15, 2007. <http://www.health.state.ny.us/diseases/communicable/influenza/pandemic/ventilators/doc>

[s/ventilator_guidance.pdf](#) pp 18, 35. Accessed September 23, 2007.

15. President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research. Withholding versus withdrawing treatment. In: Deciding to Forego Life-Sustaining Treatment. Washington DC: U.S. Government Printing Office: 1983: 73-77.

http://www.bioethics.gov/reports/past_commissions/deciding_to_forego_tx.pdf.

Accessed December 30, 2007.

16. American Medical Association. Council on Ethical and Judicial Affairs. Withholding or Withdrawing Life-Sustaining Medical Treatment. E-2.20, updated June 1996.

<http://www.ama-assn.org/ama/pub/category/8457.html> Accessed December 30, 2007.

17. Sulmasy DP, Sugarman J. Are withholding and withdrawing therapy always morally equivalent? Journal of Medical Ethics 1994; 20:218-222.

18. American Academy of Hospice and Palliative Medicine. Position statement.

<http://www.aahpm.org/positions/quality.html>. Accessed September 23, 2007.

19. World Health Organization. WHO Definition of Palliative Care.

<http://www.who.int/cancer/palliative/definition/en/>. Accessed September 23, 2007.

20. Qureshi K, Gershon RRM, Sherman MF, et al. Health care workers' ability and willingness to report to duty during catastrophic disasters. Journal of Urban Health 2005; 82: 378-388.

21. Alexander GC, Wynia MK. Ready and willing? Physicians' sense of preparedness for bioterrorism. Health Affairs (Millwood) 2003; 22(5):189-97.

<http://content.healthaffairs.org/cgi/content/full/22/5/189>. Accessed September 23, 2007.

22. Emergency System for Advance Registration of Volunteer Health professionals (ESAR-VHP). Interim Technical and Policy Guidelines, Standards, and Definitions.

http://www.hrsa.gov/esarvhp/guidelines/guide_app8.htm. Accessed September 30, 2007)

23. Metro New York 'Disaster Medical Assistance Team NY-2. <http://www.dmatny2.org>

24. The Joint Commission. Hospital Accreditation Program – Accreditation Requirements. Emergency Management. Pre-Publication Version, 2009.

http://www.jointcommission.org/NR/rdonlyres/DCA586BD-1915-49AD-AC6E-C88F6AEA706D/0/HAP_EM.pdf Accessed October 12, 2008.

25. N.Y. GEN. MUN. § 50-k-3, available at:

<http://www.nyc.gov/html/doh/downloads/pdf/em/mrc-liability-info.pdf>

26. N.Y. Pub Off § 17, available at:

https://apps.nyhealth.gov/vms/appmanager/vms/public?_nfpb=true&_windowLabel=T5400499121233350778892&T5400499121233350778892_actionOverride=%2Fgov%2Fnyhealth%2Fapps%2Fvms%2Fportlets%2Ffaqs%2FviewAnswer&T5400499121233350778

[892index=8&_pageLabel=P1000499121233350713175](#)

27. Emergency Management Assistance Compact. <http://www.emacweb.org>. Accessed December 30, 2007.
28. State of Louisiana v. Anna Pou, Orleans Criminal District Court, Parish of Orleans, State of Louisiana. Affidavit, July 2006.
http://www.nola.com/katrina/pdf/072006_nolacharges.pdf. Accessed December 19, 2007
29. Okie S. Dr. Pou and the Hurricane – Implications for patient care during disasters. N Engl J Med 2008; 358:1-5.
30. Hattis PA. Overcoming Barriers to Physician Volunteerism: Summary of State Laws Providing Reduced Malpractice Liability Exposure for Clinician Volunteers. U Ill L Rev 2005: 1033-1056.
http://home.law.uiuc.edu/lrev/publications/2000s/2004/2004_4/Hattis.pdf. Accessed November 7, 2006.
31. Filosa G, Pope J, Grand Jury Refuses to Indict Dr. Anna Pou, Times-Picayune 2007 July 24, available at: http://blog.nola.com/times-picayune/2007/07/grand_jury_refuses_to_indict_d.html
32. Levine C. Family caregivers out in the cold: HIPAA’s chilling effect on communication. New York State Bar Association Health Law Journal 2005; 10(3):71-74.
33. Burke KM, Herb A, Swidler RN. Three stubborn misconceptions on the authority of health care agents. New York State Bar Association Health Law Journal. 2005; 10 (3):63-g70. <http://members.aol.com/swidlerr/19.pdf>. Accessed December 20, 2007.
34. Department of Health & Human Services. “Dear Healthcare Provider” letter, May 17, 2004.
<http://www.hhs.gov/ocr/Healthcare-Provider-letter.pdf>. Accessed December 20, 2007
35. Parver C. Lessons from Disaster: HIPAA, Medicaid, and privacy issues—the Nation’s Response to Hurricane Katrina. Administrative Law Review, Summer 2006:651-662; P654.
36. Bruce J. Bioterrorism meets privacy: an analysis of the Model State Emergency Health Powers Act and the HIPAA Privacy Rule. Annals of Health Law 2003; 75-119.
37. U.S. Department of Health & Human Services. Office for Civil Rights. HIPAA Privacy Rule: Disclosures for Emergency Preparedness – a Decision Tool.
<http://www.hhs.gov/ocr/hipaa/decisiontool/> Accessed December 30, 2007.
38. Can health care information be shared in a severe disaster?
U.S. Department of Health & Human Services Fact Sheets
<http://www.hhs.gov/hipaafaq/permitted/emergency/960.html>

RESOURCES

GENERAL LEGAL GUIDANCE

NEW YORK CITY DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Legal Issues and Hospital Response during a Disaster

This document covers issues such as the Emergency Medical treatment and Active Labor Act (EMTALA), credentialing and immunity from liability for local and out-of-state volunteers, moving patients to alternate care sites, and related concerns.

<http://home2.nyc.gov/html/doh/html/cd/cd-panflu-plan.shtml>

USING VOLUNTEERS AND SHARING PERSONNEL

THE JOINT COMMISSION

Hospital Accreditation Requirements- 2009 Emergency Management Standards Standards Governing Volunteer Practitioners

Information for volunteer licensed independent practitioners, and volunteer practitioners who are not independent practitioners but who are required by law and regulation to have a license, certification or registration.

www.jointcommission.org/NR/rdonlyres/DCA586BD-1915-49AD-AC6E-C88F6AEA706D/0/HAP_EM.pdf

GREATER NEW YORK HOSPITAL ASSOCIATION

Using Volunteers during a Disaster

Greater New York Hospital Association, in coordination with its Emergency Preparedness Coordination Council, prepared these 2004 guidelines for New York hospitals, which covers privileging and use of unaffiliated clinical providers, as well as use of non-clinical volunteers.

www.gnyha.org/203/Default.aspx

Model Memorandum of Understanding on Sharing of Personnel in a Disaster

Greater New York Hospital Association, 2004; based on model for reciprocal use of staff that has been employed in other jurisdictions. See especially Section 5: Health care planning and emergency response, Appendix 5C, pp164-

5. <http://home2.nyc.gov/html/doh/html/cd/cd-panflu-plan.shtml>

NEW YORK CITY MEDICAL RESERVE CORPS

One of approximately 800 local volunteer programs in the country developed under a federal initiative . MRC registers, credentials, trains and is prepared to mobilize health professionals from various disciplines during a health emergency or other disaster with widespread health consequences.

Registration and information: <http://www.nyc.gov/html/doh/html/em/mrc.shtml>

Frequently Asked Questions: www.nyc.gov/html/doh/html/em/mrcfaq.shtml

NEW YORK STATE DEPARTMENT OF HEALTH

Health Emergency Volunteer Program

Statewide program that enlists licensed volunteer health professionals for deployment in an emergency in volunteers' communities or elsewhere. All volunteers' information

resides in a secure Public Health Preparedness Volunteer Practitioner Data Base, developed collaboratively with a broad range of partners, including the Medical Society of the State of New York, the New York State Nurses Association and the Health Department.

Registration (if volunteer has no Health Provider Network [HPN] account):

<https://commerce.health.state.ny.us/pub>

If volunteer has an HPN account:

<https://commerce.health.state.ny.us/hpn/cgi-bin/applinks/mpvols/VolunteerQuestionnaire>

ADVANCE DIRECTIVES AND NONHOSPITAL DNR: FORMS AND GUIDANCE

Health Care Proxy

Downloadable New York State health care proxy form with explanations of its use. (Living will forms are not available on this website because there is no statutory living will in NY State; however, they are available and may be used to delineate treatment preferences ([see Section 6, Resources, Caring Connections, page 116 - below](#)).

www.health.state.ny.us/professionals/patients/health_care_proxy/intro.htm

Non-hospital Don-Not-Resuscitate Form

Downloadable, legally approved 1-page New York State non-hospital form, which differs from alternate, multi-page legally approved Medical Orders for Life Sustaining Treatment ([see Section 6, Resources, “Dear CEO” Letter, page 116 - immediately below](#))

www.health.state.ny.us/forms/doh-3474.pdf

Dear CEO” Letter

This document explains the difference between the official, one-page New York State non-hospital Do-Not-Resuscitate (DNR) form and the alternative, multi-page Medical Orders for Life Sustaining Treatment (MOLST) form, both legally approved for use in New York State.

The non-hospital DNR form is used to authorize refusal of CPR and is one page long. The more complex MOLST form leaves room for patient preferences about life-sustaining treatments in addition to directives about CPR.

www.health.state.ny.us/professionals/nursing_home_administrator/docs/dcl_molst.pdf

Deciding about CPR—Do-Not-Resuscitate (DNR) Orders. A Guide for Patients and Families

Concise, downloadable pamphlet explaining DNR in various settings, including at home.

www.health.state.ny.us/publications/1441.pdf

CARING CONNECTIONS

Advance Care Planning Packet (Health Care Proxy and Living Will)

Program offered by National Hospice and Palliative Care Organization, provides state-specific, downloadable health care proxy and living will forms with instructions. The living will form is useful for New Yorkers who do not have an appropriate person to appoint as a health care agent (proxy), or who would like to augment their proxy appointment with a living will. Living will forms are not available from the New York

State Department of Health because there is no statutory living will in New York.

www.caringinfo.org/UserFiles/File/New_York.pdf

**MONTEFIORE MEDICAL CENTER/ALBERT EINSTEIN COLLEGE OF MEDICINE,
Making Health Care Decisions for Others: A Guide to Being a Health Care Proxy or
Surrogate**

To order 15-page booklet, contact Leslie Carrington:

lcarring@montefiore.org

Tel. (718) 920-7428

**THE HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT (HIPAA)
PRIVACY RULE.**

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Dear Healthcare Provider

Guidance on the applicability of HIPAA privacy rule but not specifically geared to disasters. www.hhs.gov/ocr/Healthcare-Provider-letter.pdf

Can health care information be shared in a severe disaster?

Information on how covered entities (providers and health plans) can share patient information during a disaster. www.hhs.gov/hipaafaq/permitted/emergency/960.html

HIPAA Privacy Rule—Disclosures for Emergency Preparedness – a Decision Tool

Office for Civil Rights online tool to help hospitals and providers apply the HIPAA privacy rule during a disaster. www.hhs.gov/ocr/hipaa/decisiontool/

ETHICAL GUIDELINES, COMMENTARY, AND EDUCATION

**Task Force on Life and the Law Workgroup on Ventilator Allocation in an
Influenza Pandemic: Planning Document**

This document provides rationale and non-age-based guidelines for allocating ventilators when resources are limited and recommends that facilities appoint triage officers (working independently from treating physicians) to oversee ventilator allocation. The triage officers are to use explicit criteria set forth in the guidance document to make such decisions.

www.health.state.ny.us/diseases/communicable/influenza/pandemic/ventilators/docs/ventilator_guidance.pdf

Hastings Center

Bioethics Backgrounder: Ethical decision-making during an influenza pandemic

Berlinger N, Moses J, for the Hastings Center. www.thehastingscenter.org or www.providence.org/oregon/Programs_and_Services/Ethics/Default.htm Accessed December 10, 2007.

Ontario Health Plan for an Influenza Pandemic (OHPIP)

www.health.gov.on.ca/english/providers/program/emu/pan_flu/ohpip2/plan_full.pdf

Montefiore Medical Center/Albert Einstein College of Medicine

Certificate Program in Bioethics and Medical Humanities

Contact Division of Bioethics:
lcarring@montefiore.org
Telephone: 1-718-920-7428

SECTION 7. PALLIATIVE CARE

PURPOSE

The purpose of this section is to provide guidance to hospitals about the goals and application of palliative care during disasters, with a particular focus on the principles of palliative care in elderly patients.

BACKGROUND

Palliative care, sometimes called “comfort care,” is a philosophy and a structured method of providing care in any setting—hospital, nursing home or the patient’s home.

Palliative care is based on a set of basic values:¹

- To cure, sometimes
- To relieve, often
- To comfort, always

Palliative care is defined in specific terms as:

- Active management that optimizes quality of life by preventing and relieving physical and psychological suffering, but is not intended to hasten death²⁻³
- An adjunct, but not an alternative, to conventional medical care
- An intrinsic part of medical care, regardless of the patient’s prognosis; thus, management of pain and other distressing symptoms should be provided to all patients who need it
- Care that is patient-and family centered

Palliative care is **not**:

- Euthanasia
- Abandonment

Palliative Care vs. Hospice Care

Whereas palliative care is a structured method of rendering care, hospice care is a service delivery system that provides palliative care for patients as they enter the terminal stages of their illness. In addition to supporting family members who are caring for their relatives, hospice care addresses families’ bereavement needs after the patient dies.

In the United States, hospice care services are usually delivered by a certified hospice program for which Medicare or certain other third-party payers cover most of the costs for patients with limited life expectancy.⁴ All hospice programs in New York State must be Medicare-certified. In contrast to non-hospice palliative care, which can and should be provided in any setting, hospice services are provided primarily in the patient’s home or in a residential care setting. Hospice patients, however, are eligible to receive inpatient care when symptom management requires a high level of intervention and support. Non-

hospice inpatients may transition to hospice services without leaving the hospital, if they obtain a hospice admission and paper hospital discharge.

Palliative Care in Disasters

If life-sustaining treatments are withheld or withdrawn, or are unavailable during a disaster, care providers must strive to keep patients as comfortable as possible. The goal of palliative care in disasters is to maximize the physical and psychological comfort of individuals who are not expected to survive in the short term (hours to days) or the long term (weeks to months), with or without treatment. There are three groups of patients that are of particular concern during disasters:⁵

- (1) Those who are seriously injured or ill as a result of the event
- (2) Those whose prognosis is limited because of the inability to obtain life-sustaining treatment in the face of shortages
- (3) Those with terminal or life-threatening disease who were receiving palliative care at home, a hospital or a nursing home before the disaster

A Fourth Group: Vulnerable Populations⁵

Vulnerable populations, such as home-bound persons with cognitive or physical impairments (most of whom are elderly individuals) are an important fourth group of concern during disasters. People fitting this description are likely to be prominently represented in the second and third groups above. They may be unable to obtain or call for assistance, either because they have no caregiver, or because family or other caregivers are unavailable.

Past events in NYC have shown that such people often are overlooked by authorities in the first wave of surge and rescue, and, if discovered, are found alone days after the event.⁶ At that point, these individuals may be seriously ill from neglect, poor self-care, or the inability to obtain food, water or medications. Such individuals require assessment and interventions that might be considered low-priority in a disaster, but, at a minimum, basic palliative care should be provided until further assessment and treatment are available.

Barriers to Palliative Care during Disasters

There are several barriers to palliative care that could affect patients of all ages, including:

- A lack of experience in the United States with allocating scarce resources in large populations
- Misperceptions about the roles of, and services offered by, palliative care and hospice providers
- A chronic shortage of clinicians trained or experienced in palliative care
- Deployment of palliative care professionals to acute care in hospitals, limiting the number available to provide hospice or palliative care in homes or in non-acute-care settings

- The need to prioritize life-saving interventions over non-invasive care approaches
- Disrupted access to medications such as opioid analgesics
- Health care provider concerns about liability when treating patients with life-threatening illnesses during disasters⁷
- An ongoing problem of suboptimal care for severe pain and other serious symptoms, due to inadequate training in assessing and treating pain, fear of legal repercussions for using high doses of controlled substances, clinicians' fears of causing addiction, and patients' fears of developing addiction⁸

Barriers to Palliative Care Faced by Elderly Patients

Geriatric care issues can compound the barriers to palliative care that exist during a disaster, including:

- Lack of information about patients' prior health status, or provider inexperience in geriatric assessment, leading to under-treatment or incorrect triage of healthy elderly
- Atypical presentation of pain or a patient's inability to express pain, leading to under-treatment of pain or failure to correctly address its cause.
- Inadequate provider knowledge or skill in geriatric prescribing, which may lead to excessive as well as inadequate dosing of medications such as opioids or sedatives
- Failure of providers to view certain life-threatening diseases, such as advanced dementia, as terminal, leading to over-treatment or unwanted treatment ([see Section 6, Ethical and Legal Issues, page 105](#))
- Coexistence of chronic illness compounded by cognitive or physical impairments, requiring additional workers (including friends or family members) to assist patients in basic activities such as feeding, toileting or taking medications
- Large numbers of non-English-speaking elderly in NYC, exacerbating the problem of incorrect clinical assessment.

PLANNING GUIDELINES

1. Identify Staff with Expertise in Palliative Care and Include One or More on the Emergency Preparedness Committee

- **Staff leaders.** Ideally, such individuals should be physicians with experience in hospice and palliative medicine who are board-certified in internal medicine or family practice. (Additional qualifications in geriatric medicine are highly desirable.) Professionals who do not have American Board of Hospice and Palliative Medicine certification but who have formal training in geriatric medicine or geriatric nursing will likely have many of the skills needed to provide basic palliative care.
- **Additional clinicians.** Identify additional clinicians who can provide consultative palliative services.

- **External consultants.** For institutions with little or no palliative-care expertise, external consultants are available who can assist with training, program design, and/or policy development ([see Section 1, Teaching Tools and Guidance, Gerontological Society of America Expert Referral Service, page 29](#)).

2. Identify Local Hospice Programs

Invite one or more representatives from local hospice organizations to participate on the Emergency Preparedness Committee.

3. Train Staff in Basic Palliative Care Skills and Principles

Be sure staff receives instruction on:

- Basic medical issues: approach and management:
 - Basic palliative care approach ([see Section 7, Tool 7-1, Basic Steps in Providing Palliative Care, page 125](#))
 - Pain, dyspnea and other distressing symptoms that commonly occur in complex, life-threatening illnesses
 - Side-effects of opioids and other medications used in palliative care
 - Recognizing appropriateness of palliative care in a range of irreversible, life-threatening illnesses, such as advanced stages of dementia and other serious chronic diseases ([see Section 7, Tool 7-3, Dementia Stage and Failure to Eat, page 127](#) and [Section 6, Ethical and Legal Issues, page 105](#)).
- Mental health issues: (for additional information [see Section 5, Mental Health Issues, page 86](#))
 - Anxiety, confusion and depression
 - Anger response from patients and families of patients who are denied access to ventilator support
 - Identifying pre-existing conditions, including prior use of psychotropic medications
- Multidimensional medical issues:
 - Sedation for control of refractory-symptom distress
 - Ventilator withdrawal from incurably ill patients
 - Titration of opioids and sedatives to achieve relief of symptom distress
 - Forgoing tube feeding and other life-sustaining treatments
 - Avoiding iatrogenic suffering by assessing burdens and benefits of medical interventions
- Communication and counseling:
 - Giving bad news
 - Grief counseling ([see Section 7, Resources, page 136](#) and [Section 5, Mental Health Issues, page 86](#))
 - Use of translation services
 - Communicating with the hearing and visually impaired

For rapid training and education tools, [see Section 7, Resources, page 136](#).

4. Provide Information to Hospital Staff on When and How to Obtain and Use Palliative Care and Hospice Services

For information on finding programs, [see Section 7, Resources, Hospice and Palliative Care Association of NY State, Find a Hospice Program, page 137](#). Hospitals that already have formal palliative care programs or personnel trained or experienced in palliative care should be contacted for assistance in basic as well as more complex management ([see Section 7, Tool 7-2, Obtaining a Palliative Care Consult, page 126](#)).

5. Familiarize Staff with Ethical and Legal Issues in the Care of Patients Not Expected to Survive

In this training, include:

- The differences among key concepts: palliative care; euthanasia and assisted suicide; withholding/withdrawing treatment
- The use of risky doses of opioids and sedatives in terminal care that could unintentionally hasten death⁹
- Determining the ability of patients to make their own treatment decisions ([see Section 6, Tool 6-1, Determining a Patient's Decisional Capacity, page 111](#))
- Use of Do-Not-Resuscitate (DNR) orders and advance directives (for a complete discussion and links, [see Section 6, Resources, Advance Directives and Nonhospital DNR: Forms and Guidance, on page 116](#))

6. Ensure There Are Adequate Supplies of Palliative Medications and Access to Injectable Morphine

Medications should that should on hand include:

- Morphine and other strong opioid immediate-release tablets
- Injectable morphine or other strong opioids for parenteral injection, or continuous intravenous or subcutaneous infusion
- Liquid oral morphine
- Liquid oral haloperidol
- Acetaminophen suppositories
- Atropine drops, 1% solution (available as ophthalmic agent but to should be used orally)
- Liquid oral lorazepam
- Potent laxative (bisacodyl, senna, other)

([See Section 7, Tool 7-5, Comfort Pack, page 129](#) and [Tool 7-7, Severe Symptom Management Chart, page 131](#).)

7. Work with City Agencies to Identify Alternative Care Sites for Patients in Need

of Palliative Care

Alternative care sites¹⁰ should be determined in advance for patients who do not require an acute hospital bed; be sure to establish:

- Methods of communication and transport between institutions
- Standards for admission
- Memoranda of understanding or contractual agreements so resources can be immediately activated in a disaster

8. Secure Hospice Participation Contracts for Inpatient Care

Established contracts will facilitate smooth transition to available hospice services when patients who are still in the acute care setting.

9. Encourage Health Care Providers Affiliated with the Institution to Identify the Most Compromised Individuals Prior to a Disaster

Clinicians should **continuously** identify patients with terminal or life-threatening illnesses who do not wish to be hospitalized and whose care could be provided at home or another nonhospital setting; be sure to provide:

- Blank documents for providers, such as Health Care Proxy and non-hospital DNR forms for use when appropriate
- Advance-care planning, including:
 - Non-hospital DNR order, if appropriate, with instructions on its use for patients and all their caregivers
 - A Health Care Proxy appointment, if the patient has the capacity to make such an appointment ([see Section 6, Ethical and Legal Issues, page 105](#))
 - Adequate supplies of medications ([see Section 7, Tool 7-5, Comfort Pack, page 129](#))
 - Identification of back-up caregivers
 - Methods and contact information for directing care by land-line telephone
 - Basic disaster preparedness information ([see Section 5, Resources, page 100](#))
 - Hospice referral, if appropriate

11. Develop Methods of Accommodating Families Distraught about the Health or Loss of Loved Ones

- Appoint or train a multi-disciplinary staff (including psychologists, social workers, psychiatrists and clergy) to provide grief counseling and other emotional support to family and caregivers
- Provide a means of communicating with non-English speaking patients by using staff translators, community volunteers or telephone translation services

12. Identify and Prescreen Volunteers on an Ongoing Basis

Find volunteers, especially from the nearby community, to assist professional staff. Nonclinical volunteers should be trained in providing adjunct services, such as feeding and toileting. Mental health and social service professionals, clergy, and others should be recruited and credentialed in advance if possible. For an overview of using volunteers during a disaster, [see Section 6, Ethical and Legal Issues, page 105](#).

TOOLS

Tool 7-1. The Basic Steps in Providing Palliative Care

Key steps for patients in hospitals or other health care settings

- Triage to the most appropriate level of care
- Triage to the most appropriate setting, potentially including alternative care sites
- Perform pain, symptom and psychosocial needs assessments for all patients
- Provide treatment of symptom distress for all

Requirements for staff preparation and support:

- Diagnostic acumen for triage
- Training in formal pain assessment
- Training in relief of common symptoms and drug side effects
- Access (by internet, telephone or in person) to palliative medicine expertise

Tool 7-2. Obtaining a Palliative Care Consult *

WHEN

Consult the palliative care hospital service when:

- A patient has prolonged or difficult ventilator withdrawal, or consideration of ventilator withdrawal is considered because death is expected
- A patient normally would be considered for intensive care unit admission and/or mechanical ventilation, but, given disaster scope, the patient is unlikely to have access to ventilator support
- There is uncertainty about prognosis
- The patient has difficult-to-control physical or emotional symptoms
- The family or physician requires assistance with goals-of-care discussion, for example, when family distress impairs surrogate decision-making
- There are conflicts about do-not-resuscitate orders
- The patient or family experiences psychological or spiritual distress
- The patient or family will likely benefit from support in considering hospice as an option

WHAT

Services expected from palliative care providers in acute care settings:

- Consultation and recommendations addressing the specific clinical considerations identified by the referring physician
- Collaboration with the referring physician, who may be able to assume care management if needed
- Expert pain and symptom management
- Attention to the concerns and needs of the patient, family and involved staff
- Collaboration on outplacement options, including writing medication orders for management in non-acute care settings

* Hospital-based palliative care programs provide consultation in managing symptoms associated with chronic or acute illness; some hospitals have dedicated inpatient units to which patients can be transferred for ongoing care management and surveillance. Tool adapted from Hospice and Palliative Care Association for NY State: Pandemic Asian Flu Project www.hpcanys.org/provider_resources.asp

Tool 7-3. Dementia Stage and Failure to Eat: Medical or Neurological?

Functional Assessment Staging Tool (FAST)* Stage Levels	Most Common Causes of Failure to Eat §
<ol style="list-style-type: none"> 1. Normal function 2. Forgetful 3. Decreasing job or domestic function 4. Difficulty with instrumental activities of daily living 5. Difficulty with basic activities of daily living 6. Progressive difficulty with activities of daily living 7. End stage <p>Late-stage and End-stage Dementia</p> <ol style="list-style-type: none"> 6a Difficulty dressing 6b Difficulty bathing 6c Difficulty with mechanics of toileting 6d Urinary incontinence 6e Fecal incontinence 7a Speech limited to a few words 7b Speech limited to a word or less 7c Can't walk without assistance 7d Can't sit up without assistance 7e Unable to smile 7f Unable to hold head up independently 	<p>Stages 1-5: Medical illness, drug toxicity, depression, inability to obtain food or delayed return of baseline eating following acute illness</p> <hr/> <p>Stage 6: Progressive neurological impairment with aversive feeding behaviors (difficulty getting food to the mouth, or resisting feeding, e.g. by pushing food or feeder away); reversible medical cause may also exist</p> <hr/> <p>Stage 7: Progressive oral dyspraxia (difficulty coordinating oral function required for chewing and swallowing); late stage 7: oral apraxia (completely unable to perform any oral function required for swallow; marker of terminal phase)</p>

*Adapted from: Reisberg B. Functional Assessment Staging (FAST). *Psychopharmacol Bull.* 1988; 24:653-655

§The FAST scale does not examine progressive inability to eat and drink, which begins and generally progresses gradually throughout the late stages. In end-stage dementia, patients are permanently unable to eat and drink, marking a terminal phase of the disease. Failure to eat before stage six almost always indicates a problem other than dementia, such as poor appetite due to medical illness.

Tool 7-4. Alternatives to Long-Term Tube-Feeding*: Helping to avoid tube-feeding when it is not necessary or when patient refuses

Approach to patients who need assistance with eating and drinking

- Assist the patient in reaching the food tray, open containers and feed self.
- Ascertain patient's baseline feeding status.
- Provide frequent, small feedings with a spoon.
- Determine food preferences and permit others to bring favorite foods from home.
- Add condiments to improve taste.
- For patients having difficulty swallowing liquids, provide foods with "antidysphagia" consistency (thick puree) and add commercially available thickener (e.g., Thick-it®) to liquids.
- Provide intravenous fluids during delays in recovery of feeding after acute illness. Expect five to 10 days for full return to baseline eating in frail patient.
- Supplement tube feeds with oral feeds, as tolerated.
- Use family or trained volunteers to assist in feeding.
- Obtain information about patient's wishes regarding long-term tube-feeding, if possible, and abide by these wishes as legally required ([see Section 6, Ethical and Legal Issues, page 105](#)).
- Inform patients or their surrogate decision-makers about risks and benefits of feeding tubes**.

Tube-feeding is not generally indicated in the following conditions (evidence of benefit lacking):**

- Pneumonia, including recurrent sub-clinical aspiration pneumonia
- Pressure ulcer
- Low serum albumin
- Swallowing evaluation that indicates aspiration risk
- Prevention of painful death from failure to eat and drink

*Adapted from: Ahronheim JC. Artificial nutrition and hydration in the terminally ill patient. *Clin Geriatr Med*. 1996 May;12(2):379-391.¹¹

**For further reading on risks and benefits of tube feeding, [see Section 7, References, 11, 12, 13, page 135](#)

Tool 7-5. Comfort Pack***For Pain or Shortness of Breath**

Medication: Morphine liquid (Roxanol®) 20 mg per ml

Give 1 quarter ml (1/4) to 1 half ml (1/2) by mouth or under tongue every 30 minutes until the patient achieves relief.

For Restlessness, Agitation, Confusion or Nausea (if not relieved by morphine)

Medication: Haloperidol liquid (Haldol®) 2 mg per ml

Give 1 quarter ml (1/4) to 1 half (1/2) ml by mouth or under tongue every hour until the patient achieves calm or relief from nausea.

For Restlessness, Agitation or Nausea (if not relieved by haloperidol)

Medication: Lorazepam liquid (Ativan®) 2 mg per ml

Give 1 quarter ml (1/4) to 1 half ml (1/2) by mouth or under tongue every 15 minutes until the patient achieves calm or relief from nausea.

For Excessive Lung Secretions (if unable to cough)

Medication: Atropine drops 1% solution**

Give 2 to 4 drops by mouth or under tongue every 2 to 4 hours as needed.

For Constipation

Medication: Bisacodyl (Dulcolax®) suppositories

Give 1 to 2 suppositories by rectum daily as needed.

For Uncomfortable Fever

Medication: Acetaminophen (Tylenol®) suppositories

Give one or two 325-mg suppositories by rectum every 4 to 6 hours as needed.

* The Comfort Pack includes medication instructions for terminal care on one page. The instructions are easy to understand and appropriate for family caregivers to utilize use at home, for example, after the patient's discharge from the hospital. Selections are based on cost and availability of liquid preparation or suppository. Doses and choices may differ for other indications, especially in frail elderly ([see Section 4, Medications: Prescribing and Dispensing, page 64](#)). Prepared by Diane E. Meier, MD. Hertzberg Palliative Care Institute, Mount Sinai School of Medicine, New York City

** Available as ophthalmic solution, although in this case should be taken by mouth or sublingual route; an alternative is glycopyrrolate (Robinol®) 0.2 mg/ml (give 0.4 to 0.8 mg every 4 to 8 hours as needed)

Tool 7-6. Age-adjusted Dosing for Opioid Treatment of Acute Pain

Opioid	Usual Adult Starting Dose*		Geriatric Starting Dose**	
	Oral	Parenteral	Oral	Parenteral
Morphine [¶] §	5-10 mg	2-5 mg	2.5-5 mg	1-2 mg
Hydromorphone [¶] §	2-4 mg	1-2 mg	2 mg	0.5-1 mg
Oxycodone [¶] §	5-10 mg		2.5-5 mg	
Oxycodone-Acetaminophen	5/325 mg (do not exceed 4 gm/day of acetaminophen)		5/325 (do not exceed 3-4 gm/day of acetaminophen)	

Other Opioids

- Sustained-release tablets should be instituted only after maintenance dose has been established
- Fentanyl[¶]: Use a transdermal patch only after maintenance dose of morphine or other opioid has been established, or resume patient's established dose
- Tramadol (Ultram[®]) ([see Section 4, Tool 4-1, Age-associated Pharmacokinetic and Pharmacodynamic Changes, page 65](#))
- Methadone: Do not use unless patient has failed standard opioids; initiate only in conjunction with an experienced pain consultant; generally, avoid entirely in elderly patients to prevent drug accumulation (half-life of drug is longer than duration of analgesic effect)
- Meperidine (Demerol[®]): Avoid repeated doses to prevent accumulations of toxic metabolite
- Propoxyphene (Darvon[®]): Avoid because of minimal therapeutic effect despite opioid adverse effects

* Conservative dosing guidelines are intended for "opioid-naïve" patients, and should be considered a "test" dose for patients in severe pain. They may be repeated within an hour or less if ineffective. Patients who have recently been receiving opioids, including a "weak" opioid such as codeine or hydrocodone, may need higher initial doses. These guidelines assume normal renal and liver function.

** Initial dose is for an opioid-naïve patient. Patients who have recently been receiving opioids may need higher initial doses. "Geriatric dose" represents the preferred starting dose for frail elderly, particularly those over 80 who appear underweight. Repeated dosing should assume occult renal insufficiency (as discussed in [Section 4, Medications: Prescribing and Dispensing, page 64](#)) and enhanced central nervous system effects. Around-the-clock dosing in frail elderly requires periodic reevaluation during titration to avoid oversedation.

¶ Can be given by continuous subcutaneous infusion for patients with poor i.v. access, though intravenous-subcutaneous conversion ratios are not well established

§ Oral liquid preparation available

Tool 7-7. Severe Symptom Management Chart*

Symptom	Medication	Route of Administration	Adult Dosage	Frail Elderly: Comments**
<ul style="list-style-type: none"> • Severe Dyspnea • Dyspnea at Rest • Respiratory Failure • Air Hunger 	Lorazepam tabs (if necessary, dissolve in <1 ml of fluid)	Oral or rectal	0.5 mg every 8 hours scheduled or every 2 hours as needed. May increase to 1 mg if needed	<p>Observed for worsened confusion or delirium; smaller doses and longer intervals between doses may be necessary if deep sedation is not desired.</p> <p>Observe for tolerance to sedating effects of morphine over time.</p>
	Morphine liquid concentrate 20 mg/ml	Oral or Sublingual	2.5 mg every 2 to 4 hours as needed. May increase to 5 mg as needed	
	Morphine injectable solution	Subcutaneous or i.v.	0.5 to 1 mg every 2 to 4 hours as needed. May increase to 1 or 2 mg if needed	
<ul style="list-style-type: none"> • Cough 	Morphine liquid concentrate 20 mg/ml	Oral	2.5 mg every 2 to 4 hours as needed. May increase to 5 mg if needed	<p>Lengthen interval between doses if patient develops progressive confusion or if deep sedation is not desired.</p>
	Morphine injectable solution	Subcutaneous or i.v.	1 mg every 2 to 4 hours as needed. May increase to 2 mg if needed	
<ul style="list-style-type: none"> • Anxiety 	Lorazepam tabs (if necessary, dissolve in <1 ml of fluid)	Oral or rectal	0.5 mg every 4 hours as needed. May increase to 1 mg if needed	<p>Observe for worsened confusion or delirium. Smaller doses or longer intervals between doses may be necessary if deep sedation is not desired. Selective serotonin reuptake inhibitor (e.g. sertraline) may be helpful in patients who do not tolerate benzodiazepines, though effect usually delayed.</p>

Tool 7-7. Cont'd				
Symptom	Medication	Route of Administration	Adult Dosage	Frail Elderly: Comments**
<ul style="list-style-type: none"> • Muscle aches • Fever • Chest pain 	Acetaminophen tabs or liquid	Oral or rectal	650 to 1000 mg every 6 hours as needed	Maximum acetaminophen dose: 3 to 4 grams/day
	Ibuprofen tabs or syrup	Oral	200 to 800 mg every 6 to 8 hours as needed	Maximum ibuprofen dose: 3.2 grams/day A histamine-2 blocker or proton-pump inhibitor may be necessary to prevent gastric bleeding, especially with scheduled dosing.
<ul style="list-style-type: none"> • Constipation 	Senna tabs or liquid	Oral	1 to 4 tablets daily while inactive, especially if using opioids	Use enemas if patient has no bowel movement for 72 hours, sooner if patient is at risk for fecal impaction.
	Bisacodyl tabs	Oral	1 to 4 tablets daily if senna not effective	
	Bisacodyl suppositories	Rectal	1 to 2 suppositories daily if oral routes not used	
<ul style="list-style-type: none"> • Secretions in patients who are unable to cough 	Glycopyrrolate oral solution (0.2 mg/ml)	Oral or sublingual	0.4 to 0.8 mg every 8 hours as needed	Observe for increased confusion, constipation, urinary retention or exacerbation of tachyarrhythmia.
	Atropine 1% ophthalmic solution	Oral or sublingual (not in eyes)	2-4 drops every 2 to 4 hours as needed	

Tool 7-7. Cont'd

Symptom	Medication	Route of Administration	Adult Dosage	Frail Elderly: Comments**
<ul style="list-style-type: none"> • Agitation/anxiety (if lorazepam and haloperidol are not adequate) • Intractable anxiety, other intractable symptoms, existential distress 	Phenobarbital tabs	Oral	45 to 60 mg every 8 hours as needed. May increase to 90mg	Smaller starting doses of phenobarbital and slower titration are appropriate, especially if deep sedation is not desired.
	Phenobarbital injectable solution (130 mg/ml)	Subcutaneous or i.v.	45 to 60 mg every 8 hours as needed. May increase to 90 mg	Smaller starting doses and slower titration are appropriate if deep sedation is not desired.
	Chlorpromazine (Thorazine) tabs	Oral	25 to 50 mg every 6 hours as needed	Observe for urinary retention, especially in men.
	Chlorpromazine Injectable solution	i.v.	25 to 50 mg every 6 hours as needed	Intravenous chlorpromazine may produce hypotension; smaller starting doses and slower titration are recommended.
<ul style="list-style-type: none"> • Seizures 	Lorazepam tabs (if necessary dissolve in <1 ml of fluid)	Oral or rectal	2 mg every 10 minutes until seizure stops	In postictal phase, prolonged sedation could be the result of the residual effect of lorazepam.
	Lorazepam injectable solution	Subcutaneous or i.v.	2 mg every 10 minutes until seizure stops	
<ul style="list-style-type: none"> • Nausea/Vomiting • Hallucinations/Disorientation • Delirium • 	Haloperidol tabs or oral solution	Oral or rectal	1 mg every 2 to 4 hours as needed	When symptoms permit, reduce dose or increase dosing interval in ambulatory patients to avoid gait deterioration.
	Haloperidol injectable solution	Subcutaneous or i.v.	1 mg every 2 to 4 hours as needed	

Tool 7-7. Cont'd

Symptom	Medication	Route of Administration	Adult Dosage	Frail Elderly: Comments**
• Alternatives for nausea/vomiting	Lorazepam tabs (may use with haloperidol)	Oral or rectal	0.5 mg every 2 to 4 hours as needed. Increase to 1 mg, if needed	Reduce dose or increase dosing interval as soon as symptoms permit, if deep sedation not desired.
	Promethazine	Oral or rectal	12.5 to 25 mg every 6 hours as needed	
• Dehydration	NaCl 0.9% i.v. solution	i.v. or subcutaneous	1 to 3 liters/ 24 hours	Titrate to comfort; intravenous rehydration may worsen secretions and respiratory distress; patient not expected to recover may prefer to avoid parenteral fluids, since burdens may outweigh benefits.
• Diarrhea	Loperamide capsules	Oral	4 mg followed by 2 mg after each stool	Fecal impaction may present with diarrhea, which should resolve with disimpaction. Loperamide unlikely to produce sedation or confusion; if patient requires morphine for pain or other non-diarrhea symptoms, loperamide may be added to the regimen for control of diarrhea.
	Morphine liquid concentrate (20 mg/ml)	Oral	2.5 mg every 2 to 4 hours as needed	

*Adapted from: Hospice & Palliative Care Association for New York State: Toolkit for Symptom Management. Pandemic Asian Flu Project. Comments concerning frail elderly have been developed collaboratively and added here. For further information about the Pandemic Flu Palliative Care Plan, visit. http://www.hpcanys.org/provider_resources.asp

**Doses based on pharmacokinetic and pharmacodynamic principles delineated in [Section 4, Medications: Prescribing and Dispensing, page 64](#). [See also Section 7, Tool 7-6, Age-adjusted Dosing for Opioid Treatment of Acute Pain, page 130](#).

REFERENCES

1. Old French saying, inscribed on Gutzon Borglum statue of Dr. Edward Livingston Trudeau, founder of Tuberculosis Sanitarium, Saranac Lake, N.Y.
2. American Academy of Hospice and Palliative Medicine. Position statement. www.aahpm.org/positions/quality.html. Accessed November 20, 2009.
3. World Health Organization. WHO Definition of Palliative Care. <http://www.who.int/cancer/palliative/definition/en/>. Accessed November 20, 2009.
4. Health care financing administration. Medicare Hospice Benefits <http://www.medicare.gov/publications/pubs/pdf/hosplg.pdf>. Accessed November 20, 2009.
5. Wilkinson AM, Matzo M, Gatto M, Lynn J. Palliative Care (Chapter 7). In: Phillips SJ, Knebel A, eds. *Mass Medical Care with Scarce Resources: A Community Planning Guide*. Prepared by Health Systems Research, Inc., an Altarum company, under contract No. 290-04-0010. AHRQ Publication No. 07-0001. Rockville, MD: Agency for Healthcare Research and Quality 2007. www.ahrq.gov/research/mce/mce7.htm and <http://www.ahrq.gov/research/mce/mce7b.htm>. Accessed November 20, 2009.
6. Rodwin, Victor G. and Gusmano, Michael K. (eds.) *Growing Older in World Cities*. Nashville, USA, Vanderbilt University Press, 4-5.
7. Okie S. Dr. Pou and the Hurricane – Implications for patient care during disasters. *N Engl J Med* 2008; 358:1-5.
8. University of Wisconsin. Pain & Policy Studies Group. Background about Pain Relief and Public Policy (Section III), In: *Achieving Balance in Federal and State Pain Policy*. www.painpolicy.wisc.edu/Achieving_Balance/EG2008.pdf. Accessed November 20, 2009.
9. Sulmasy D. The rule of double effect: Clearing up the double talk. *Arch Intern Med* 1999; 159:545-550.
10. Cantrill S, Bonnett C, Hanfling D, et al. Alternative Care Sites. In: Phillips SJ, Knebel A [eds.]. *Mass Medical Care with Scarce Resources: A Community Planning Guide*. AHRQ Publication No. 07-0001. Rockville, MD: Agency for Healthcare Research and Quality 2007 www.ahrq.gov/research/mce/mce6.htm. Accessed November 20, 2009.
11. Ahronheim JC. Artificial nutrition and hydration in the terminally ill patient. *Clin Geri Med*. 1996; 12 (2): 379-391.
12. Finucane TE, Christmas C, Travis K. Tube feeding in patients with advanced dementia: A review of the literature. *JAMA*. 1999; 282:1365-1370.
13. Finucane TE, Bynum JP. Use of tube feeding to prevent aspiration pneumonia.

Lancet. [erratum]. 1996; 348:1421-1424.

RESOURCES

END OF LIFE/PALLIATIVE CARE EDUCATION RESOURCE CENTER

Fast Facts

Easy-to-use, concise guidelines (approximately 220 topics) on a variety of palliative-care-management principles prepared by experts in the field in collaboration with the American Academy of Hospice and Palliative Medicine

www.eperc.mcw.edu/ff_index.htm

Selected topics:

- Ventilator Withdrawal Protocol (Part I)
www.eperc.mcw.edu/fastFact/ff_033.htm
- Symptom Control for Ventilator Withdrawal in the Dying Patient (Part II)
www.eperc.mcw.edu/fastFact/ff_034.htm
- Information for Patients and Families about Ventilator Withdrawal (Part III)
www.eperc.mcw.edu/fastFact/ff_035.htm
- Treatment of Dyspnea
www.eperc.mcw.edu/fastFact/ff_027.htm
- Subcutaneous Opioid Infusions.
www.eperc.mcw.edu/fastFact/ff_028.htm
- Tube Feed or Not Tube Feed?
www.eperc.mcw.edu/fastFact/ff_010.htm
- Disaster: Coping with Tragedy (Fast Facts and Concept)
http://www.mcw.edu/fastFact/ff_50.htm

MOUNT SINAI SCHOOL OF MEDICINE

Opioid Therapy Guidelines Pocket Reference Card

This card includes opioid analgesic equivalences and guidelines for kidney and liver disease, titration, breakthrough pain and bowel function, among others.

www.mssm.edu/palliative/pdf/paincardv20011.pdf

THE SIDNEY KIMMEL COMPREHENSIVE CANCER CENTER AT JOHNS HOPKINS

Opioid Conversion Calculator

A free, PDA-based opioid-conversion calculator assists in dosing when converting from one opioid to another (user should have basic skills on equianalgesic dosing).

www.hopweb.org/

ASSURING YOUR WISHES.ORG

Online Advance Directive Access

This site enables individuals to file advance directives online for future access

Registration is required.

www.assuringyourwishes.com/

(for further information on advance directives, [see Section 6, Resources, page 115](#))

GETPALLIATIVECARE.ORG

A Web-based information source about palliative care designed for patients and families; it also includes guidance for physicians.

www.getpalliativecare.org/

CENTER TO ADVANCE PALLIATIVE CARE

This site provides training, tools and other resources for health professionals to develop and maintain palliative-care programs in their institutions

Tel. (212) 201-2670

www.capc.org

Specific topics:

Building a Hospital-Based Palliative Care Program

Manual that provides guidance in forming and financing palliative-care services in the acute-hospital setting. (Print manual and audiovisual tools are available for purchase.)

www.capc.org/building-a-hospital-based-palliative-care-program/

CAPCconnectSM

A palliative care discussion forum that provides a useful resource for ongoing palliative care management issues via threaded discussions; it includes a “Palliative Care in the ED” section.

www.capc.org/forums

HOSPICE AND PALLIATIVE CARE ASSOCIATION OF NEW YORK STATE

Find a Hospice Program

This online resource helps users locate hospice programs in New York State.

www.hpcanys.org

www.hpcanys.org/find_program.asp

AMERICAN ACADEMY OF HOSPICE AND PALLIATIVE MEDICINE

This organization provides educational opportunities, clinical guidelines and multiple resources for multidisciplinary management of palliative care, including a certifying exam in palliative medicine available to qualified individuals with a “grandfathering” option through 2012.

www.aahpm.org/

NATIONAL HOSPICE AND PALLIATIVE CARE ORGANIZATION

www.nhpco.org/templates/1/homepage.cfm

HOSPICE AND PALLIATIVE NURSES ASSOCIATION

www.hpna.org/

ALZHEIMER’S ASSOCIATION (NEW YORK CITY CHAPTER)

Educational and advocacy organization that assisting families of patients with dementia in gaining access to a wide range of services.

www.alznyc.org/index.asp

Tel. (646) 744-2900, (800) 272 3900 (24-hour help line).

ADDITIONAL PALLIATIVE CARE COURSES AND TRAINING

Intensive Update with Board Review in Geriatric and Palliative Medicine

Department of Geriatrics and Adult Development, Mount Sinai Medical Center, New

York City

Annual 4-day fall course; tuition required; scholarships available
www.mssm.edu/geriatrics/education/courses/geriatric_medicine/

Visiting Scholars Program

Mount Sinai School of Medicine, New York City

This observership in palliative medicine is designed for physicians, nurse practitioners, social workers and other professionals, and lasts for one to three days or one to three weeks.

Diane.maguire@mssm.edu

Telephone: 1-212-241-8830

Center to Advance Palliative Care

Palliative Care Leadership Centers

Intensive training at six academic sites outside New York City, offering two days of hands-on training and one year of distance mentoring.

<http://www.capc.org/palliative-care-leadership-initiative/training-and-mentoring>

Telephone: 1-212-201-2680

Department of Pain Medicine and Palliative Care, Beth Israel Medical Center, New York City

Web- based online education for physicians and nurses; continuing education credits available; links available.

<http://www.stoppain.org/>

GRIEF AND LOSS

(For additional information, see [Section 5, Resources, page 100](#)).

Caring Connections

Grieving a Loss (Caring Connections)

<http://www.caringinfo.org/GrievingALoss.htm>

Bereavement (National Hospice and Palliative Care Organization)

http://www.nhpco.org/files/public/Insights_09.05_Bereavement_Perspective.pdf