International Nursing Coalition for
Mass Casualty Education

Educational Competencies for Registered Nurses
Responding to Mass Casualty Incidents

August 2003

Educational Competencies for Registered Nurses Responding to Mass Casualty Incidents

August 2003

Report Prepared for the International Nursing Coalition for Mass Casualty Education By

INCMCE Competency Committee
Joan Stanley PhD, RN, CRNP, *Chair*

A. Ruth Chastain, EdD, RN
Kevin Davies, RRC, MA, PGCE
Patrick Deeny, RN, BSc (Hons)
Carol Etherington, MSN, RN, FAAN
Kristine Gebbie, DrPH, RN
Carol Gilbert, PhD, RN
Beth Hembree, DSN, RN
Jacqueline Merrill, MPH, RN, C
Linda Norman, DSN, RN
Donna Nowakowski, MS, RN, CAE
Lenore Resick, MSN, RN, CS, CRNP
Pam Thompson, MSN, RN, FAAN
Jan Towers, PhD, NP-C, FAANP
Kathryn Werner, MPA
Susan Woods, PhD, RN, FAAN

Acknowledgements

International Nursing Coalition for Mass Casualty Education (INCMCE)
Competency Committee Members

American Association of Colleges of Nursing
Joan Stanley, PhD, RN, CRNP, *Chair*

American Academy of Nurse Practitioners
Jan Towers, PhD, NP-C, CRNP, FAANP

American Organization of Nurse Executives
Pamela Thompson, MSN, RN, FAAN

Columbia University School of Nursing
Kristine M. Gebbie, DrPh, RN

Columbia University School of Nursing
Jacqueline A. Merrill, MPH, RN, C

Commission on Collegiate Nursing Education
Susan Woods, PhD, RN, FAAN

Duquesne University School of Nursing
Lenore Resick, MSN, RN, CS, CRNP

Emergency Nurses Association
Donna Nowakowski, MS, RN, CAE

Jacksonville State University
Beth Hembree, DSN, RN

National League for Nursing Accrediting Commission
Carol Gilbert, PhD, RN

National Organization of Nurse Practitioner Faculties
Kathryn E. Werner, MPA

Union University
A. Ruth Chastain, EdD, RN

University of Glamorgan (South Wales)
Kevin Davies, RRC, MA, PGCE

University of Ulster School of Nursing
Patrick Deeny, , RN, BSc (Hons) Nursing, RNT, Adv. Dip Ed.

Vanderbilt University School of Nursing
Carol Etherington, MSN, RN, FAAN

Vanderbilt University School of Nursing
Linda Norman, DSN, RN

Educational Competencies for Registered Nurses
Responding to Mass Casualty Incidents

As part of the international community's overall plan for emergency preparedness in mass casualty incidents (MCI), nurses world-wide must have a minimum level of knowledge and skill to appropriately respond to a mass casualty incident.

> *A mass casualty incident is any single event caused by natural forces, by the physical failure of machinery or infrastructure systems or by the conduct of people that results in a significant disruption to the health and safety of the community or segment thereof, or to the nation and that results or is likely to result in numbers or acuity that initially exceeds the day-to-day operational capability of the local response community and healthcare system. Examples of such events include hurricane, tornado, train or airplane crash, power outage over a significant geographical area, terrorist attack or act or war. (Adapted from ANA, 2002; Barbera & Macintyre, 2003)*

Not all nurses can or should be prepared as First Responders. Every nurse, however, must have sufficient knowledge and skill to recognize the potential for a MCI, identify when such an event may have occurred, know how to protect oneself, know how to provide immediate care for those individuals involved, recognize their own role and limitations, and know where to seek additional information and resources. Nurses also must have sufficient knowledge to know when their own health and welfare may be in jeopardy and have a duty to protect both themselves and others. The potential roles of professional nurses in a MCI may vary extensively due to diverse educational backgrounds, experiences, and practice settings within the community and health care system. These roles may include identifying when a MCI has occurred, responding to a call to go to the scene of an incident, working at a local hospital or emergency field hospital where victims are being treated, or relieving nurses who were initially involved in these activities.

The competencies identified in this document apply to all professional nurse roles and practice settings. Practice sites encompass a wide array of settings, including acute care facilities, clinics, schools, homes, and other community venues. The individual competencies are general and must be interpreted in relation to the functional role of an individual nurse within an agency or community and the respective emergency response plan. Therefore, competencies will be applied to practice in differing ways depending on the specific roles and responsibilities the nurse performs within the agency, community and national response plans.

> *Much of the knowledge and experiences underpinning the competencies related to appropriate and timely response to MCIs are basic to nursing practice. Therefore, most of the principles and information necessary for the development of competence in these areas are included in all basic nursing education programs. However, the context in which these competencies may be employed could vary and the nurse's role would be specific to the situation. The competencies in this document have been prepared to help nurse educators include MCI preparedness in the nursing curriculum.*

Six essential components of professional nursing education have been identified (American Association of Colleges of Nursing, 1998). The MCI nursing competencies identified in this document fall within three of the components of nursing education: core competencies, core knowledge, and professional role development. Therefore, to facilitate the integration of these competencies within the nursing curriculum, *The Essentials of Baccalaureate Education for Professional Nursing Practice* (1998) is used as a framework to delineate MCI competencies.

All nurses from novice to expert should have a basic knowledge and ability to appropriately respond to MCIs. Nurses upon graduation from an entry-level nursing education program should have sufficient knowledge and skill to demonstrate these competencies. To attain this goal, all entry-level nursing education programs should integrate the necessary knowledge and experiences throughout the nursing curriculum. Nurses who have completed basic education requirements and are registered to practice should receive the needed additional education through continuing education opportunities, provided through a various modalities.

Background

Americans and the international community must be well prepared to respond to MCIs. The 2.7 million registered nurses in the United States, as well as the nursing population worldwide, provide a tremendous untapped resource that can and must be used if the nation is to adequately prepare for MCIs. In order for nurses to respond appropriately to MCIs, guidelines and recommendations must be in place to ensure that they can recognize and respond to potential and occurring emergency events. Currently, nursing education guidelines do not mandate or recommend that all nurses be educated on how to recognize or respond to MCIs.

The International Nursing Coalition for Mass Casualty Education (INCMCE) is coordinated by the Vanderbilt University School of Nursing. (See Appendix B for a list of organizations participating in the INCMCE.) It was founded to assure a competent nurse workforce to respond to mass casualty incidents. The INCMCE seeks to facilitate the systematic development of policies related to mass casualty incidents as they influence the public health infrastructure and impact on nursing practice, education, research and regulation. The INCMCE currently focuses on several areas: 1) increasing the awareness of all nurses about mass casualty incidents; 2) providing leadership to the nursing profession for the development of knowledge and expertise related to mass casualty education; 3) identifying competencies for nurses at academic and continuing education levels; 4) establishing a clearinghouse of information and web links for professional development of nurses; and 5) providing input into policy development related to nursing practice, education and research at the governmental and institutional levels. The INCMCE consists of organizational representatives of schools of nursing, nursing accrediting bodies, nursing specialty organizations and governmental agencies interested in promoting mass casualty education for nurses.

Process

To address the critical need for MCI preparedness, the International Coalition for Mass Casualty Education (INCMCE), in March 2001, appointed a committee to develop competencies for professional nurses in relation to MCIs. Members of the Committee represented graduate and undergraduate schools of nursing in the United States and abroad, professional nursing organizations, and practicing nurses. The Committee formed to develop a set of national consensus-based, validated competencies for all entry-level nurses not dependent upon role or setting.

The process used to develop the competencies consisted of three distinct phases:

Phase One: The first phase of the process was to review previously developed sets of competencies related to MCIs. The recommendations set forth in this document are based heavily on those competencies delineated by the American College of Emergency Physicians (April 2001); Center for Health Policy, Columbia School of Nursing (April 2001); University of Ulster, University of Glamorgan School of Health Sciences School of Nursing (September 1999); Uniformed Services University of the Health Sciences Graduate School of Nursing (November 2001); United States Air Force (2001); and the World Health Organization (1999).

Phase Two: During phase two, the Committee and the INCMCE responded to several drafts of nursing competencies, developed based on the literature outlined above. This process produced a set of consensus-based competencies for entry-level professional nurses.

Phase Three: Phase three involved the review and evaluation of the competencies by a Validation Panel. Each school and organization participating in the INCMCE was asked to nominate up to three individuals to serve on the Validation Panel. The Validation Panel consisted of 46 representatives of nursing education, regulation, accreditation, and practice from diverse practice settings and roles. See Appendix A for organizations and institutions represented on the Validation Panel. The Committee used feedback from the Validation Panel to finalize and reach consensus on the competencies.

EDUCATIONAL COMPETENCIES FOR REGISTERED NURSES RELATED TO MASS CASUALTY INCIDENTS

CORE COMPETENCIES

I. Critical Thinking

1. Use an ethical and nationally approved framework to support decision-making and prioritizing needed in disaster situations.

2. Use clinical judgment and decision-making skills in assessing the potential for appropriate, timely individual care during a mass casualty incident.

3. Use clinical judgment and decision-making skills in assessing the potential for appropriate, individual ongoing-care after a mass casualty incident.

4. Describe at the pre-disaster, emergency and post-disaster phases the essential nursing care for:
   - individuals,
   - families,
   - special groups, e.g. children, elderly, pregnant women; and
   - communities.

5. Describe accepted triage principles specific to mass casualty incidents.

II. *Assessment*

A. General

1. Assess the safety issues for self, the response team, and victims in any given response situation in collaboration with the incident response team.

2. Identify possible indicators of a mass exposure (i.e, clustering of individuals with the same symptoms.

3. Describe general signs and symptoms of exposure to selected chemical, biological, radiological, nuclear, and explosive agents (CBRNE).

4. Demonstrate the ability to access up-to-date information regarding selected nuclear, biological, chemical, explosive, and incendiary agents.

5. Describe the essential elements included in a mass casualty incident (MCI) scene assessment.

6. Identify special groups of patients that are uniquely vulnerable during a MCI, e.g. the very young, aged, immunosuppressed.

B. Specific

1. Conduct a focused health history to assess potential exposure to CBRNE agents.

2. Perform an age-appropriate health assessment, including:

   - airway and respiratory assessment,
   - cardiovascular assessment, including vital signs and monitoring for signs of shock,
   - integumentary assessment, particularly a wound, burn, and rash assessment,
   - pain assessment,
   - injury assessment from head to toe,
   - gastrointestinal assessment, including specimen collection,
   - basic neurological assessment,
   - musculoskeletal assessment, and
   - mental status, spiritual, and emotional assessment.

3. Assess the immediate psychological response of the individual, family, or community following a MCI.

4. Assess the long-term psychological response of the individual, family, or community following a MCI.

5. Identify resources available to address the psychological impact, e.g. Critical Incident Stress Debriefing (CISD) teams, counselors, Psychiatric/Mental Health Nurse Practitioners (P/MHNPs).

6. Describe the psychological impact on responders and health care providers.

III. *Technical Skills*

1. Demonstrate safe administration of medications, particularly vasoactive and analgesic agents, via oral (PO), subcutaneous (SQ), intramuscular (IM), and intravenous (IV) administration routes.

2. Demonstrate the safe administration of immunizations, including smallpox vaccination.

3. Demonstrate knowledge of appropriate nursing interventions for adverse effects from medications administered.

4. Demonstrate basic therapeutic interventions, including:

   - basic first aid skills,
   - oxygen administration and ventilation techniques,
   - urinary catheter insertion,
   - naso-gastric tube insertion,
   - lavage technique, i.e. eye and wound, and;
   - initial wound care.

5. Assess the need for and initiate the appropriate CBRNE isolation and decontamination procedures available, ensuring that all parties understand the need.

6. Demonstrate knowledge and skill related to personal protection and safety, including the use of Personal Protective Equipment (PPE) for:

   - Level B protection,
   - Level C protection, and
   - Respiratory protection.

7. Implement fluid/nutrition therapy, taking into account the nature of injuries and/or agents exposed to and monitoring hydration and fluid balance accordingly.

8. Assess and prepare the injured for transport, if required, including provisions for care and monitoring during transport.

9. Demonstrate the ability to maintain patient safety during transport through splinting, immobilization, monitoring, and therapeutic interventions.

10. Demonstrate use of emergency communication equipment and information management techniques required in a MCI response.

IV. Communication

1. Describe the local chain of command and management system for emergency response during a MCI. [1]

2. Identify your role, if possible, within the emergency management system.

3. Locate and describe the emergency response plan for one's place of employment and its role in community, state, and regional plans.

4. Identify one's own role in the emergency response plan for the place of employment.

5. Discuss security and confidentiality during a MCI.

6. Demonstrate appropriate emergency documentation of assessments, interventions, nursing actions and outcomes during and after a MCI.

7. Identify appropriate resources for referring requests from patients, media, or others for information regarding MCIs.

8. Describe principles of risk communication to groups and individuals affected by exposure during a MCI.

9. Identify reactions to fear, panic and stress that victims, families, and responders may exhibit during a disaster situation.

10. Describe appropriate coping strategies to manage self and others.

CORE KNOWLEDGE

I. Health Promotion, Risk Reduction, and Disease Prevention

1. Identify possible threats and their potential impact on the general public, emergency medical system, and the health care community.

2. Describe community health issues related to MCI events, specifically limiting exposure to selected agents, contamination of water, air, and food supplies, and shelter and protection of displaced persons.

II. Health Care Systems and Policy

1. Define and distinguish the terms disaster and mass casualty incident (MCI) in relation to other major incidents or emergency situations.

2. Define relevant terminology, including:

   - CBRNE,
   - weapons of mass destruction (WMD),

---

[1] The Incident Management System (IMS) is the currently recognized command communication system used during a MCI in the United States.

- triage,
- chain of command and management system for emergency response,
- personal protective equipment (PPE),
- scene assessment, and
- comprehensive emergency management.

3. Describe the four phases of emergency management: preparedness, response, recovery and mitigation.

4. Describe the local emergency response system for disasters.

5. Describe the interaction between local, state and federal emergency response systems.

6. Describe the legal authority of public health agencies to take action to protect the community from threats, including isolation, quarantine, and required reporting and documentation.

7. Discuss principles related to a MCI site as a crime scene, e.g. maintaining integrity of evidence, chain of custody.

8. Recognize the impact MCIs may have on access to resources and identify how to access additional resources, e.g. pharmaceuticals, medical supplies.

III. *Illness and Disease Management*

1. Discuss the differences/similarities between an intentional biological attack and that of a natural disease outbreak.

2. Describe, using an interdisciplinary approach, the short term and long term effects of physical and psychological symptoms related to disease and treatment secondary to MCIs.

IV. *Information and Health Care Technologies*

1. Describe use of emergency communication equipment that you will be required to use in a MCI response.

2. Discuss the principles of containment and decontamination.

3. Describe procedures for decontamination of self, others, and equipment for selected CBRNE agents.

4. Describe how nursing skills may have to be adapted while wearing PPE.

V. *Ethics*

1. Identify and discuss ethical issues related to MCI events:

- Rights and responsibilities of health care providers in MCIs, e.g. refusing to go to work or report for duty, refusal of vaccines.
- Need to protect the public versus an individual's right for autonomy, e.g. right to leave the scene after contamination.
- Right of the individual to refuse care, informed consent.
- Allocation of limited resources.

- Confidentiality of information related to individuals and national security.
- Use of public health authority to restrict individual activities, require reporting from health professionals, and collaborate with law enforcement.

2. Describe the ethical, legal, psychological, and cultural considerations when dealing with the dying and or the handling and storage of human remains in a mass casualty incident.

3. Identify and discuss legal and regulatory issues related to:

- abandonment of patients;
- response to a MCI and one's position of employment; and
- various roles and responsibilities assumed by volunteer efforts.

VI. *Human Diversity*

1. Discuss the cultural, spiritual, and social issues that may affect an individual's response to a MCI.

2. Discuss the diversity of emotional, psycho-social and socio-cultural responses to terrorism or the threat of terrorism on one's self and others.

PROFESSIONAL ROLE DEVELOPMENT

1. Describe these nursing roles in MCIs:

- Researcher,
- Investigator/epidemiologist,
- EMT or First Responder,
- Direct care provider, generalist nurse,
- Direct care provider, advanced practice nurse,
- Director/coordinator of care in hospital/nurse administrator or emergency department nurse manager,
- On-site coordinator of care/incident commander,
- On-site director of care management,
- Information provider or educator, particularly the role of the generalist nurse,
- Mental health counselor, and
- Member of planning response team.

- Member of community assessment team.

- Manager or coordinator of shelter.

- Member of decontamination team.

- Triage officer

2. Identify the most appropriate or most likely health care role for oneself during a MCI.

3. Identify the limits to one's own knowledge/skills/abilities/authority related to MCIs.

4. Describe essential equipment for responding to a MCI, e.g. stethoscope, registered nurse license to deter imposters, packaged snack, change of clothing, bottles of water.

5. Recognize the importance of maintaining one's expertise and knowledge in this area of practice and of participating in regular emergency response drills.

6. Participate in regular emergency response drills in the community or place of employment.

References Cited in Document

American Association of Colleges of Nursing. (1998). *The essentials of baccalaureate education for professional nursing practice*. Washington, DC: Author.

American Nurses Association. (2002). Position Statement on Work Release during a Disaster: Guidelines for Employers. Adopted by the ANA Board of Directors. Effective June 24, 2002.

Barbera. J. & Macintyre, A. (2003). *Jane's mass casualty handbook: Hospital emergency preparedness and response.* Surrey, UK: Jane's Information Group, Ltd.

Center for Health Policy, Columbia University School of Nursing. (April 2001). *Core public health worker competencies for emergency preparedness and response.* Atlanta, GA: Centers for Disease Control.

Cole, F. & Ramirez, E. (1999). Evaluating an emergency nurse practitioner education program for its relevance to the role. *Journal of Emergency Nursing, 25* (6), 547-550.

Fraser, M. & Fisher, V.S. (January 2001). *Elements of effective bioterrorism preparedness: A planning primer for local public health agencies*. Washington, DC: National Association of County and City Health Officials.

Gebbie, K. & Qureshi, K. (2002). Emergency and disaster preparedness: Core competencies for nurses, What every nurse should but may not know. *American Journal of Nursing, 102* (1), 46-51.

Task Force of Health Care and Emergency Services Professionals on Preparedness for Nuclear, Biological, and Chemical Incidents. (April 2001) *Final Report: Developing objectives, content, and competencies for the training of emergency medical technicians, emergency physicians, and emergency nurses to care for casualties resulting from nuclear, biological, or chemical (NBC) incidents (*Contract No. 282-98-0037). American College of Emergency Physicians.

Uniformed Services University of the Health Sciences Graduate School of Nursing. (November 2001). Materials and personal communication from Faye G. Abdellah, Dean and Professor, Graduate School of Nursing, including examples of advanced practice nursing objectives, course description, and course offerings.

United States Air Force. (2001). RSV for AFSC 46XX and RSV for AFSC 46N3E. Competencies for all clinical and emergency department nurses. (Unpublished documents) Washington, DC: Author.

University of Ulster, School of Health Sciences, Nursing. (1998). *Course document for postgraduate diploma/MSc in disaster relief nursing for entry September 1999.* Ulster, UK: Author.

World Health Organization. (1999). *Development of a disaster preparedness tool kit for nursing and midwifery: Report on a WHO meeting held at the University of Ulster 20-21st August 1999.* Copenhagen, Denmark: WHO.

Additional References

Advanced Life Support Group. (1995). *Major incident medical management and support: The practical approach.* London: British Medical Journal Publishing Group.

Association of State and Territorial Directors of Nursing. (April 2002). Position Paper: *Public Health Nurses' Vital Role in Emergency Preparedness and Response.* Atlanta, GA: Author.

Cutts, M. & Dingle, A. (1998*). Safety first: Protecting NGO employees who work in areas of conflict.* (2nd edition). London: Save the Children.

Institute of Medicine. (2002). *Biological threats and terrorism, assessing the science and response capabilities.* Washington, DC: National Academies Press.

Institute of Medicine National Research Council. (1999). *Chemical and biological terrorism: Research and development to improve civilian medical response.* Washington, DC: National Academies Press.

Medecins Sans Frontieres. (1997). *Refugee health: An approach to emergency situations.* London: Macmillan Education Ltd.

Red Cross & Red Crescent Societies. (1985) *Guidelines for nurses in disaster preparedness and relief.* Geneva: Author.

The Sphere Project. (2000). *Humanitarian charter and minimum standards in disaster response.* London: Oxfam Publications.

Appendix A: Organizations Represented on the Validation Panel

American Academy of Nurse Practitioners
American Association of Critical Care Nurses
American Nurses Association
American Organization of Nurse Executives
American Red Cross
CIGNA Health Care
Columbia University
Commission on Collegiate Nursing Education
Department of Veterans Affairs
Duquesne University
Emory University
Georgia Southern University
Jacksonville State University
National Organization of Nurse Practitioner Faculties
Tennessee Wesleyan College
Union University
United States Navy Office of Homeland Security
United States Public Health Service
University of Alabama
University of Kentucky
University of Maryland
University of Massachusetts
University of Texas-Austin
University of Washington

Appendix B: International Nursing Coalition for Mass Casualty Education (INCMCE)

Organizations and Institutions

Agency for Healthcare Research and Quality

Alabama State Board of Nursing

American Academy of Nurse Practitioners

American Academy of Nursing

American Association of Colleges of Nursing

American Association of Nurse Anesthetists

American Nurses Association

American Organization of Nurse Executives

American Public Health Association

American Red Cross

American Social Health Association

Arizona State Board of Nursing

Association of State and Territorial Directors of Nursing

Auburn University School of Nursing

Bournemouth University School of Nursing

Charleston County's Coroners Office

Commission on Collegiate Nursing Education

Cigna Health Care

Columbia University School of Nursing

Department of Veterans Affairs Office of National Emergency Management

Duquesne University School of Nursing

Emergency Nurses Association

Emory University School of Nursing

George Mason University

Georgia Southern University School of Nursing

George Washington University School of Medicine and Health Science

Health Resources and Services Administration

Hospital Preparedness (Israel)

Institute for Johns Hopkins University School of Nursing

International Association of Forensic Nurses

Jacksonville State University College of Nursing and Health Sciences

Louisiana State University School of Nursing Health Science Center

Maryland State Board of Nursing

Meharry Medical College

Massachusetts Organization of Nurse Executives

National Emergency Management Strategic Division of Nursing

National Council of State Boards of Nursing

National League for Nursing

National League for Nursing Accrediting Commission

National Organization of Nurse Practitioner Faculties

Nicholls State University Department of Nursing

Northeastern University Bouve College of Health Sciences, School of Nursing

Quabbin Healthcare Consulting, Inc.

Rush University College of Nursing

Shenadoah University School of Nursing

SUNY Downstate Medical Center

Tennessee Center for Nursing

Tennessee Nurses Association

Tennessee Wesleyan College Department of Nursing

Uniformed Services University of the Health Sciences
Graduate School of Nursing

Union University School of Nursing

University of Alabama School of Nursing

University of Bournemouth (England)

University of Glamorgan (South Wales)

University of Kentucky College of Nursing

University of Louisiana - Lafayette

University of Maryland School of Nursing

University of Massachusetts - Amherst

University of Massachusetts – Lowell

University of Michigan School of Nursing

University of Pittsburgh School of Nursing

University of Rochester School of Nursing

University of San Francisco School of Nursing

University of Texas –Austin School of Nursing

University of Texas Medical Branch at Galveston School of Nursing

University of Ulster (Ireland) Nursing School of Health Sciences

University of Washington School of Nursing

US Department of Public Health

US Navy Medicine Office of Homeland Security

US Office of Public Health Preparedness

Vanderbilt University School of Nursing

Virginia Commonwealth School of Nursing

Western Kentucky University School of Nursing