

## CRITICAL CARE FACT SHEET

- Critical care is the multi-disciplinary medical and nursing specialty that treats patients with life-threatening illness or injury who require immediate treatment to prevent death.
- It is estimated that 80% of all Americans will experience critical care firsthand, either as a patient or the family member of a patient. Critical illness and injury know no age, social, ethnic, or economic boundaries. They can strike anyone at anytime.
- Critical care can be practiced wherever life is threatened – at the scene of an accident, in an ambulance or medivac helicopter, in a hospital emergency room, or on an operating room table.
- Most critical care today is practiced in hospital trauma centers and intensive care units (ICUs) specialized in caring for patients with life-threatening conditions. Examples of types of critical care units are:
  - neonatal ICU (NICU) or intensive care nursery (ICN)
  - pediatric ICU (PICU)
  - coronary care unit (CCU)
  - burn unit
  - respiratory ICU (RICU)
  - neurosurgical or neuroscience ICU
- Intensive care units are characterized by extremely sophisticated and expensive equipment, around-the-clock intensive treatment and monitoring, and a highly trained and well-synchronized team of physicians, nurses, and other health care professionals.
- Critical care is a team effort requiring the skill and expertise of specialists in surgery, anesthesiology, pediatrics, and internal medicine, assisted by critical care nurses, respiratory therapists, physical therapists, technicians, social workers as well as a full array of hospital support services available 24 hours a day.
- Critical care physicians or "intensivists" have special multi-disciplinary training, skills, and experience in caring for the critically ill and injured. Critical care physicians can now receive subspecialty certification in critical care medicine.
- Critical care nurses are also specially educated and certified in the care of seriously ill patients. Critical care nurses not only have the technical ability to work in the most sophisticated area of modern medicine, but those special qualities that enable them to work one-on-one, around-the-clock with very sick patients and their families.
- Critical care physicians and nurses often say that they entered this field because they like the challenges and excitement of treating "the sickest of the sick," and because they can see patients improve physically as a result of their efforts.



- Critical care medicine emerged in the late 1950s and early 1960s, based on treatment and organizational innovations developed in the polio epidemic, the two World Wars, Korea, and Vietnam.
- Since its emergence in the last 30 years, critical care has exploded on the medical scene. Intensive care units are now the hallmark of the modern hospital. Most hospitals today have at least one intensive care unit.
- In 1988, according to the American Hospital Association, there were 86,543 critical care beds in 6,556 critical care units at 6,281 hospitals.
- Critical care is three to four times more expensive than routine hospital care. Intensive care beds make up 6% of this nation's total acute care hospital beds, but comprise 15-20% of dollars spent on hospital care.
- Critical care expenditures currently represent one percent of this nation's GNP.
- Most patients who enter an intensive care unit survive.
- Since the emergence of coronary care units, in-hospital mortality from myocardial infarctions (heart attacks) has been reduced from 38% to 16%.
- Since the emergence of respiratory intensive care units, deaths from respiratory failure due to reversible neurologic or muscular dysfunction has been reduced from 95% to 5%.
- Since the emergence of intensive care units, death from shock secondary to sepsis has declined from 90% to 60%.
- In the last 20 years, the mortality rate for newborns has been reduced by 50% through the use of neonatal ICUs. Thanks to new techniques and special equipment, babies weighing as little as a pound or two at birth, who would in earlier years have had a slim chance for survival, are now treated and sent home to live full and normal lives.
- Trauma, the medical term for injury (intentional or accidental) is the third leading cause of death among all Americans.
- Trauma is the leading cause of death for Americans between one and 44 years of age.
- More than 92,500 Americans die from trauma each year. About one half of these deaths occur in motor vehicle accidents.
- More than four million potential years of life are lost annually to trauma, exceeding the combined total for heart disease, cancer, and stroke.
- Trauma permanently maims 340,000 each year.
- An estimated 25,000 die needlessly every year, after reaching the hospital, because of the absence of a national trauma care system.



- Trauma costs the nation over \$100 billion each year in death and disability.
- The unprecedented medical advances of critical care have brought with them difficult new questions about how best to use our new life-saving capabilities, and how to ensure that critically ill and injured patients receive the special kind of care they need.

## **SOME COMMONLY ASKED QUESTIONS AND ANSWERS ABOUT CRITICAL CARE**

### **1. WHAT IS CRITICAL CARE?**

Critical care is the multi-disciplinary medical and nursing specialty which treats patients with life-threatening illness or injury who require immediate treatment to prevent death.

Critical care can be practiced wherever life is threatened -- at the scene of an accident, in an ambulance or medivac helicopter, in a hospital emergency room or on an operating room table. Most critical care today is practiced in hospital trauma centers and intensive care units specialized in caring for patients with life-threatening conditions.

Some ICUs treat a wide variety of medical and surgical patients, while other units are more specialized, such as:

- Neonatal units for newborns
- Pediatric ICUs for infants and children
- Coronary Care Units for heart patients
- Neurosurgical ICUs for brain and spinal cord-related conditions
- Respiratory Care Units for lung-related conditions
- Burn Units

### **2. WHAT IS THE DIFFERENCE BETWEEN CRITICAL CARE AND CRITICAL CARE MEDICINE?**

Although the two terms can be used synonymously, we define critical care broadly to mean the multi-disciplinary care of critically ill and injured patients provided by doctors, nurses, and other trained professionals; while critical care medicine refers more specifically to the medical or physician specialty.

### **3. WHAT IS THE DIFFERENCE BETWEEN CRITICAL CARE AND INTENSIVE CARE?**

While the terms "critical care" and "intensive care" are sometimes used interchangeably, the Foundation for Critical Care regards critical care as the continuum of all care provided a critically ill or injured person. This includes care given at the scene of an accident or the



onset of an acute illness, during transport, and in the hospital. Intensive care is that care given in special sections of the hospital (intensive care units) designed specifically for caring for the very seriously ill or injured.

4. WHAT IS THE DIFFERENCE BETWEEN CRITICAL CARE AND EMERGENCY MEDICINE?

Critical care medicine is not the same as emergency medicine. Emergency rooms treat people with many disorders – some minor (sprained ankles or broken arms) – some major (heart attacks, gunshot wounds). Critical care refers exclusively to those with life-threatening conditions.

5. WHAT IS THE DIFFERENCE BETWEEN CRITICAL ILLNESS AND TERMINAL ILLNESS?

Critical illness is an acute condition which requires immediate treatment to prevent death. It requires intensive monitoring and interventions in an intensive care environment for the best chance of survival. Though patients in critical condition are in great danger of dying they often experience a full recovery. On the other hand, a terminal illness will eventually cause the death of the patient. Patients with terminal illnesses may have acute episodes which require intensive care, but not necessarily. Care of the terminally ill can take place in a number of settings, including the home, a hospice, a nursing home, or a hospital.

6. WHY IS IT IMPORTANT FOR THE PUBLIC TO UNDERSTAND CRITICAL CARE?

- To help the public to become better consumers of critical care – to make them aware of the great critical care facilities available to them in their city and around the country.
- Most of us will experience critical care personally – either as a patient or the family member of a patient. When critical illness or injury strikes, it is usually sudden, unexpected, unfamiliar, and confusing. If you have some advance understanding of what to expect and do some advance preparation, the experience may be a little less difficult to get through.
- As citizens we all need to understand some of the complex ethical, economic, and social issues facing critical care. As a society we are going to have to make some very difficult choices about this very expensive area of medicine.

7. HOW CAN I PREPARE FOR A CRITICAL ILLNESS OR INJURY?

- Become familiar with the critical care facilities in your area. Where are the designated trauma centers? burn units? pediatric ICUs and trauma centers? If you are planning to undergo major surgery or give birth, ask about the hospital's critical care facilities in case an unexpected problem develops.
- Know emergency phone numbers and have them displayed prominently in your home.



- Have frank discussions with your family and family physician about the difficult issues surrounding critical illness or injury. What are your wishes and what are the wishes of your loved ones regarding use of "extraordinary" life-support measures? Organ donation? Prepare a living will or durable power of attorney (which allows you to select someone to make decisions on your behalf when you are no longer able to) that expresses your wishes in writing.
- A critical illness or injury can be extremely expensive, even for a brief stay in an ICU. Learn the extent of your health insurance coverage for intensive care or other critical care services.
- Learn more about critical care and critical care issues that can affect you. Talk to your family physician, or contact the Foundation for Critical Care at 202/775-0721 for further information.

8. HOW DO I KNOW MY LOVED ONE IS IN A GOOD ICU? WHAT SHOULD I BE LOOKING FOR? WHAT ARE THE BEST ICUs IN THIS AREA?

There is currently no objective system for ranking or designating high quality intensive care units. We can't, therefore, provide a listing of the best ICUs. However, here are some standards that you should expect from your ICU:

- Specially trained teams of doctors, nurses therapists, technicians, social workers, and others who are experienced in the care of critically ill or injured patients.
- A full-time medical director, who directs patient care and serves as administrator of the ICU.
- Highly skilled and intensive nursing care. Often there will be one nurse assigned to each patient, or one nurse to two patients.
- Around-the-clock care, and 24-hour emergency access to hospital support services (such as laboratories, pharmacy, and operating rooms).
- Specialized equipment to monitor and support organ systems which may not be functioning normally (such as heart lungs, or kidneys).
- A well-synchronized team approach involving collaboration between doctors, nurses, and other professionals.

9. DOES A PATIENT (OR FAMILY MEMBER SPEAKING ON HIS OR HER BEHALF) HAVE THE RIGHT TO REFUSE TREATMENT IN AN ICU?

Yes. Because patients in ICUs are often in unconscious, semi-conscious, or otherwise "incompetent" states, decisions to withhold or withdraw sustaining treatments can sometimes be very complicated. These decisions are only with great care and after extensive discussion between care-givers, families, and where possible. Where conflicts occur about appropriate treatment, hospital ethics and even courts have



been used to reach fair resolution. If a family member feels that the patient's wishes are not being respected, he or she should speak immediately to the doctor-in-charge, a nurse, a social worker, or other hospital authority.

10. DOES A PATIENT (OR FAMILY MEMBER SPEAKING ON HIS OR HER BEHALF) HAVE A RIGHT TO DEMAND TREATMENT IN AN ICU?

There are some instances when a seriously ill patient cannot benefit from an ICU. This applies to patients who are hopelessly ill, where ICU interventions would only uncomfortably and expensively prolong the dying process rather than save a life. Many ICUs have developed admissions and discharge criteria to establish objective guidelines for deciding who can benefit and who will not. These guidelines are based on the medical conditions of the patient. Generally the physician-in-charge will make every effort to ensure that the patient and family are comfortable with the recommended course of treatment, and there are few instances where conflicts will arise.

Recently, for a number of financial reasons (such as new reimbursement policies and the shortage of nurses), hospitals across the country have, from time to time, experienced shortages of critical care beds. In these cases, directors of critical care units have been forced to "triage", or select for admission those patients most likely to benefit. This may mean denying ICU services to those patients who could potentially benefit, and is a national situation that must be closely monitored.

While medical condition and prognosis may be a reason to deny admission to a critical care unit, ability to pay is not. Legal protections are in place to ensure that the lives of patients without adequate health insurance are not threatened by transfer to other hospitals. Uninsured patients with a critical illness or injury must be cared for in the receiving hospital or stabilized before transfer to another hospital.

11. WHAT IS NATIONAL CRITICAL CARE AWARENESS WEEK?

House Joint Resolution 542 which designates the week of November 12 - 18, 1990, as National Critical Care Awareness Week has been introduced into Congress by Congressman Gus Yatron of Pennsylvania. Senator Charles Robb is introducing this legislation in the Senate. National Critical Care Awareness Week is supported by the Foundation for Critical Care, the Society of Critical Care Medicine, and the American Association of Critical-Care Nurses. This week is to be marked by public education programs and activities throughout the United States.



## CRITICAL CARE STATISTICS

- It is estimated that 80% of all Americans will experience critical care first-hand, either as a patient or the family member of a patient. Critical illness and injury know no age, social, ethnic, or economic boundaries.
- In 1988, according to the American Hospital Association, there were 86,543 critical care beds in 6,556 critical care units at 6,281 hospitals.
- Critical care is three to five times more expensive than routine hospital care. Intensive care beds make up 6% of this nation's total acute care hospital beds, but comprise 15-20% of dollars spent on hospital care.
- Critical care expenditures currently represent one percent of this nation's GNP. (All health care consumes roughly 12% of the GNP.)
- In 1987 alone, trauma cost the nation over \$130 billion in lost wages, medical expenses, insurance administration, and other costs.
- Most patients who enter an intensive care unit survive.
- Since the emergence of coronary care units, in-hospital mortality from myocardial infarctions (heart attacks) has been reduced from 38% to 16%.
- Since the emergence of respiratory intensive care units, deaths from respiratory failure due to reversible neurologic or muscular dysfunction has been reduced from 95% to 5%.
- Since the emergence of intensive care units, death from shock secondary to sepsis has declined from 90% to 60%.
- In the last 20 years, the mortality rate for newborns has been reduced by 50% through the use of neonatal ICUs. Thanks to new techniques and special equipment, babies weighing as little as a pound or two at birth, who would in earlier years have had a slim chance for survival, are now treated and sent home to live full and normal lives.
- Critical care may save as many as 200,000 lives a year.
- Trauma, the medical term for injury (intentional or accidental) is the third leading cause of death among all Americans.
- Trauma is the leading cause of death for Americans between 1 and 44 years of age.
- More than 140,000 Americans die from trauma each year. About 50,000 of these deaths occur in motor vehicle accidents.
- More than four million potential years of life are lost annually to trauma, exceeding the combined total for heart disease, cancer, and stroke.
- Trauma permanently maims 340,000 each year.
- An estimated 25,000 die needlessly every year, after reaching the hospital.      use of the absence of a national trauma care system.