

DESCRIPTION OF THE PARAMEDIC PROFESSION

Paramedics have fulfilled prescribed requirements by a credentialing agency to practice the art and science of out-of-hospital medicine in conjunction with medical direction. Through performance of assessments and providing medical care, their goal is to prevent and reduce mortality and morbidity due to illness and injury. Paramedics primarily provide care to emergency patients in an out-of-hospital setting.

Paramedics possess the knowledge, skills, and attitudes consistent with the expectations of the public and the profession. Paramedics recognize that they are an essential component of the continuum of care and serve as linkages among health resources.

Paramedics strive to maintain high quality, reasonable cost health care by delivering patients directly to appropriate facilities. As an advocate for patients, paramedics seek to be proactive in affecting long term health care by working in conjunction with other provider agencies, networks, and organizations. The emerging roles and responsibilities of the Paramedic include public education, health promotion, and participation in injury and illness prevention programs. As the scope of service continues to expand, the Paramedic will function as a facilitator of access to care, as well as an initial treatment provider.

Paramedics are responsible and accountable to medical direction, the public, and their peers. Paramedics recognize the importance of research and actively participate in the design, development, evaluation, and publication of research. Paramedics seek to take part in life-long professional development, peer evaluation, and assume an active role in professional and community organizations.

-1999 DOT EMT-PARAMEDIC National Standard Curriculum

FUNCTIONAL JOB ANALYSIS

The Functional Job Description is outlined here and describes the required skills and job requirements essential to EMS personnel.

Paramedic Characteristics from DOT NHTSA

The Paramedic must be a confident leader who can accept the challenge and high degree of responsibility entailed in the position. The Paramedic must have excellent judgment and be able to prioritize decisions and act quickly in the best interest of the patient, must be self-disciplined, able to develop patient rapport, interview hostile patients, maintain safe distance, and recognize and utilize communication unique to diverse multicultural groups and ages within those groups. The Paramedic must be able to function independently at optimum level in a non-structured environment that is constantly changing.

Even though the Paramedic is generally part of a two-person team generally working with a lower skill and knowledge level Basic EMT, it is the Paramedic who is held responsible for safe and therapeutic administration of drugs; including narcotics. Therefore, the Paramedic must not only be knowledgeable about medications but must be able to apply this knowledge in a practical sense. Knowledge and practical application of medications include thoroughly knowing and understanding the general properties of all types of drugs including analgesics, anesthetics, anti-anxiety drugs, sedatives and hypnotics, anti-convulsants, central nervous stimulants, psychotherapeutics which include antidepressants, and other anti-psychotics, anticholinergics, cholinergics, muscle relaxants, anti-dysrhythmics, anti-hypertensives, anticoagulants, diuretics, bronchodilators, ophthalmics, pituitary drugs, gastro-intestinal drugs, hormones, antibiotics, antifungals, anti-inflammatories, serums, vaccines, anti-parasitics, and others.

The Paramedic is personally responsible, legally, ethically, and morally for each drug administered, for using correct precautions and techniques, observing and documenting the effects of the drugs administered, keeping one's own pharmacological knowledge-base current as to the changes and trends in administration and use, keeping abreast of all contraindications to administration of specific drugs to patients based on their constitutional make-up, and using drug reference literature.

The responsibility of the Paramedic includes obtaining a comprehensive drug history from the patient that includes names of drugs, strength, daily usage and dosage. The Paramedic must take into consideration that many factors, in relation to the history given, can affect the type medication to be given. For example, some patients may be taking several medications prescribed by several different doctors and some may lose track of what they have or have not taken. Some may be using non-prescription/over the counter drugs. Awareness of drug reactions and the synergistic effects of drugs combined with other medicines and in some instances, food is imperative. The Paramedic must also take into consideration the possible risks of medication administered to a pregnant mother and the fetus, keeping in mind that drugs may cross the placenta.

The Paramedic must be cognizant of the impact of medications on pediatric patients based on size and weight, special concerns related to newborns, geriatric patients and the physiological effects of aging such as the way skin can tear in the geriatric population with relatively little or no pressure. There must be an awareness of the high abuse potential of controlled substances and the potential for addiction; therefore, the Paramedic must be thorough in report writing and able to justify why a particular narcotic was used and why a particular amount was given. The ability to measure and remeasure drip rates for controlled substances/medications is essential. Once medication is stopped or not used, the Paramedic must send back unused portions to the proper inventory area.

The Paramedic must be able to apply basic principles of mathematics to the calculation of problems associated with medication dosages, perform conversion problems, differentiate temperature reading between centigrade and Fahrenheit scales, be able to use proper advanced life support equipment and supplies (i.e. proper size of intravenous needles) based upon a patient's age and condition of veins, and be able to locate sites for obtaining blood samples and perform these tasks, administer medication intravenously, administer medications by gastric tube, administer oral medications, administer rectal medications, and comply with universal precautions and body substance isolation, disposing of contaminated items and equipment properly.

The Paramedic must be able to apply knowledge and skills to assist overdosed patients to overcome trauma through antidotes, and have knowledge of poisons and be able to administer treatment. The Paramedic must be knowledgeable as to the stages drugs/medications go through once they have entered the patient's system and be cognizant that route of administration is critical in relation to patient's needs and the effect that occurs.

The Paramedic must also be capable of providing advanced life support emergency medical services to patients including conducting of and interpreting electrocardiograms (EKGs), electrical interventions to support the cardiac functions, performing advanced endotracheal intubations in airway management and relief of pneumothorax and administering of appropriate intravenous fluids and drugs under direction of off-site designated physician.

The Paramedic is a person who must not only remain calm while working in difficult and stressful circumstances, but must be capable of staying focused while assuming the leadership role inherent in carrying out the functions of the position. Good judgment along with advanced knowledge and technical skills are essential in directing other team members to assist as needed. The Paramedic must be able to provide top quality care, concurrently handle high levels of stress, and be willing to take on the personal

responsibility required of the position. This includes not only all legal ramifications for precise documentation, but also the responsibility for using the knowledge and skills acquired in real life threatening emergency situations.

The Paramedic must be able to deal with adverse and often dangerous situations which include responding to calls in districts known to have high crime and mortality rates. Self-confidence is critical, as is a desire to work with people, solid emotional stability, a tolerance for high stress, and the ability to meet the physical, intellectual, and cognitive requirements demanded by this position.

Physical Demands

Aptitudes required for work of this nature are good physical stamina, endurance, and body condition that would not be adversely affected by frequently having to walk, stand, lift, carry, and balance at times, in excess of 125 pounds. Motor coordination is necessary over uneven terrain. The patient's, the Paramedic's and other workers' well being must not be jeopardized.

Comments

The Paramedic provides the most extensive pre-hospital care and may work for fire departments, private ambulance services, police departments or hospitals. Response times for nature of work are dependent upon nature of call. For example, a Paramedic working for a private ambulance service that transports the elderly from nursing homes to routine medical appointments and checkups may endure somewhat less stressful circumstances than the Paramedic who works primarily with 911 calls in districts known to have high crime rates. Thus, the particular stresses inherent in the role of the Paramedic can vary, depending on place and type of employment.

However, in general, in the analyst's opinion, the Paramedic must be flexible to meet the demands of the ever-changing emergency scene. When emergencies exist, the situation can be complex and care of the patient must be started immediately. In essence, the Paramedic in the EMS system uses advanced training and equipment to extend emergency physician services to the ambulance.

The Paramedic must be able to make accurate independent judgments while following oral directives. The ability to perform duties in a timely manner is essential, as it could mean the difference between life and death for the patient.

Use of the telephone or radio dispatch for coordination of prompt emergency services is required, as is a pager, depending on place of employment. Accurately discerning street names through map reading, and correctly distinguishing house numbers or business addresses are essential to task completion in the most expedient manner. Concisely and accurately describing orally to dispatcher and other concerned staff, one's impression of patient's condition, is critical as the Paramedic works in emergency conditions where there may not be time for deliberation. The Paramedic must also be able to accurately report orally and in writing, all relevant patient data. At times, reporting may require a detailed narrative on extenuating circumstances or conditions that go beyond what is required on a prescribed form. In some instances, the Paramedic must enter data on a computer from a laptop in the ambulance. Verbal skills and reasoning skills are used extensively.

DESCRIPTION OF TASKS

(Encompasses the range of all tasks performed by lower level EMT's)

Answers verbally to telephone or radio emergency calls from dispatcher to provide advanced efficient and immediate emergency medical care to critically ill and injured persons using a full range of equipment.

Drives ambulance to scene of emergency, reads map, responds safely and quickly to the address or location as directed by radio dispatcher, observes traffic ordinances and regulations. Visually inspects and assesses or "sizes up": the scene upon arrival to determine if scene is safe, determines the mechanism of illness or injury, the total number of patients involved, and remains calm and confident while demonstrating leadership and responsibility.

Radio dispatcher for additional help or special rescue and / or utility services. Reports verbally to the responding EMS unit or communications center as to the nature and extent of injuries and the number of patients. Recognizes hazards. Conducts triage, sorting out and classifying priorities for most immediate need for treatment. Uses excellent judgment to identify priorities based on the most critical needs for patient survival.

Searches for medical identification as a clue in providing emergency care, i.e. identification bracelet for patient who is diabetic. Reassures patient and bystanders while working in a confident and efficient manner, avoids misunderstandings and undue haste while working expeditiously to accomplish the task. Extricates patient from entrapment, works with other EMS providers in rendering emergency care and protection to the entrapped patient. Performs emergency moves, assists other EMS providers in the use of prescribed techniques and appliances for safe removal of the patient.

Determines nature and extent of illness or injury in patient, takes pulse, blood pressure, and temperature, visually observes patient, recognizes the mechanism of injury, takes, comprehensive medical history of patient, including patient's current usage of prescribed and non-prescribed medications/drugs. Communicates with and provides verbal direction to Basic EMT to assist with tasks within the Basic's scope of practice. Obtains consent and/or refusal. Uses good judgment to draw conclusions with often limited information; verbally communicates effectively to provide quality treatment to diverse age and cultural groups. Provides family support, manages the difficult patient, conducts fundamental mental status assessment, restrains patient, and intervenes pharmacologically.

Positions unresponsive patient, protects the seizing patient, identifies and treats the hypoglycemic patient, provides heating/cooling intervention, manages burns and exposures, overdoses, conducts ingestion management. Manually stabilizes neck and body of child and adult, immobilizes extremities, straightens selected fractures and reduces selected dislocations. Delivers newborn. Provides pre-hospital emergency care of simple and multiple system trauma such as controlling hemorrhage, bandaging wounds, manually stabilizing painful, swollen joints and injured extremities, and immobilizing spine.

Uses basic and advanced life support equipment to open airway and upper airway adjuncts, removes foreign bodies, uses upper airway suction devices, performs orotracheal intubation, nasotracheal intubation, oral intubation with pharmacological assistance and surgery on airway. Uses dual or single lumen airway devices. Provides mouth to mouth barrier device ventilation, oxygen administration, chest injury management, bag-valve mask resuscitation. Uses powered ventilation devices, hand held aerosol nebulizer. Performs cardio-pulmonary resuscitation, uses automatic defibrillator apparatus in application of electric shock to heart, manages amputation, uses anti-shock garment, conducts peripheral venous access, intraosseous infusion, manual defibrillation, interprets EKGs, uses external pacemaker.

Administers medication (narcotics), determines the patient's most appropriate body route based on patient diagnosis. Calculates amount of medication to be given in relation to patient's weight, age and other factors that warrant adjustment of volume. Uses oral, auto-injection, sublingual, inhalation, subcutaneous, intramuscular, intraosseous, transcutaneous, rectal, endotracheal, and intravenous routes including central and peripheral lines and venesection as well as infusion pumps to administer medications.

Assists other EMS providers in lifting patient onto stretcher, places patient in ambulance, secures stretcher. Continues to monitor patient enroute to the hospital.

Checks, maintains vehicles, and provides mechanical report. Restocks and replaces used supplies, uses appropriate disinfecting procedures to clean equipment, checks all equipment to insure adequate working condition for next response. Takes inventory of and accounts for all medications (narcotics) given. Keeps log of all transactions. Prepares accurate and legible medical reports. Provides medical reports to staff.

Transports non-emergency patients to regularly scheduled appointments, for example, transport geriatric patients in nursing homes. Uses computer to enter data for EMS reports.

Supervises the activities and educational experiences of assigned observers and students. Complies with regulations in handling the deceased.

Functions as the primary direct care provider of emergency health care services to sick and injured patients in pre-hospital settings. Works primarily in advanced life support units affiliated with fire departments, police departments, rescue squads, hospitals, or private ambulance services under the off-site supervision of a physician, usually through radio communication, is usually the senior level member of a two person team, working in conjunction with a Basic EMT.

Accepts primary responsibility for all aspects of advanced life support given to the patient, including use of advanced life support equipment and administration of medication that includes narcotics; responsible for thorough written documentation of all activity related to patient care and medication dispensation. Successfully completes continuing education and refresher courses required by employers, medical direction, and licensing or certifying agencies. Meets qualifications within the functional job analysis.
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PROGRAM TECHNICAL STANDARDS

As a student in the New Haven Sponsor Hospital's Paramedic Program, you should be aware that certain physical and mental abilities will be needed to successfully complete portions of your classroom, clinical and field internship requirements. The following technical standards describe the physical and mental abilities necessary to complete the EMT-PARAMEDIC program and to practice as a paramedic in the field. **These are NOT standards for admission.**

An EMT-PARAMEDIC must possess the physical capability, mental capacity and sufficient strength and motor coordination required to perform the following:

1. Lift, carry and balance a minimum of 125 lbs (250 with assistance) for the purpose of frequently lifting patients and stretchers often over uneven ground and footing.
2. Demonstrate manual dexterity, good motor skills, eye-hand coordination skills, and sensory functions using both upper and lower extremities. You must be able to perform these skills in confined spaces or under time constraints as well.

3. See and hear in a manner sufficient to respond to emergencies and assess patients while working alone often in an environment with loud noises and flashing lights and other distractions. To include reading and interpreting both fine print and signs at a distance and under time constraint.
4. Drive an ambulance or rescue unit under emergency conditions, as well as at night and in adverse weather conditions.
5. Stand and walk for sustained periods of time.
6. Write and orally communicate under stressful conditions promptly and effectively.
7. Express or exchange ideas and interact with patients, peers, and other medical staff in person, or via portable radio in a professional manner in English.
8. Work with frequent interruptions and respond appropriately to unexpected situations. Work throughout an entire work shift with wide variations in work load and stress levels.
9. Cope with personal stresses (e.g. mood changes, loss of concentration) in a way that does not interfere with performance.
10. Demonstrate appropriate judgment and decision-making skills under highly stressful situations.

Essential Functions and Standards for Successful Performance

To successfully complete the classroom and clinical components of the NHSHP Paramedic program, the paramedic student must, either independently or with reasonable accommodation, be able to perform all of the following essential functions within a limited time frame:

1. Speech: Establish interpersonal rapport and communicate verbally and in writing with clients, physicians, peers, family members, and the health care team from a variety of social, emotional, cultural, and intellectual backgrounds.
2. Hearing: Auditory acuity sufficient to respond to verbal instruction, perceive and interpret various equipment signals, use the telephone, and hear faint body sounds.
3. Vision: Visual acuity sufficient to identify and distinguish colors, read handwritten orders and any other handwritten or printed data such as medication records or scales, chart data, and provide for the safety of clients' condition by clearly viewing monitors and other equipment in order to correctly interpret data.
4. Mobility: Stand and/or walk eight-twelve hours daily in the clinical or field setting. Bend, squat, or kneel. Assist in lifting or moving clients of all age groups and weights. Assist in lifting and transporting the ambulance stretcher. Perform cardiopulmonary resuscitation (move around client to manually compress chest and ventilate). Work with arms fully extended overhead. Work in non-climate controlled environments.
5. Manual Dexterity: Demonstrate eye/hand coordination sufficient to manipulate equipment (syringes, infusion pumps, EKG machines, etc.).
6. Fine Motor Ability: Ability to use hands for grasping, pushing, pulling, and fine manipulation. Tactile ability sufficient for physical assessment.
7. Mentation: Maintain reality orientation for at least a twelve-hour period of time. Assimilate, organize and apply knowledge and skills acquired through lectures, discussions, and readings.
8. Smell: Olfactory ability sufficient to monitor and assess health needs.
9. Writing: Ability to organize thoughts and present them clearly and logically in writing.
10. Reading: Ability to read and understand written directions, instructions and comments in both classroom and clinical setting

In summary,...the general environmental conditions in which the Paramedic works cannot be adequately assessed in an indoor evaluative environment. Because of the variance in climate, environmental conditions and locations in the United States and the infinite possibilities in which a Paramedic is expected to provide advanced life support, working conditions, at best, may be less than optimal. The Paramedic must be able to focus on providing the best care possible in often adverse and dangerous situations. This can include servicing neighborhoods known to have high crime rates and performing optimally in situations where multiple incidents and trauma exist, i.e. a major highway accident that involves numerous persons and vehicles. The Paramedic may be required frequently to walk, climb, crawl, bend, push, or lift and balance over less than ideal terrain, such as an icy highway, muddy ground, dilapidated stairs/flooring, and any other scenario or combination of scenarios. There may be exposure to a variety of noise levels, which at times can be quite high, particularly when multiple sirens are sounding, and crowds/bystander/s families are upset and may be screaming, crying hysterically, and making demands that may or may not be reasonable.

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Applicants who feel they may be deficient in one or more of the areas mentioned above should speak with the Education Coordinator or NHSHP Director. We will seriously consider applicants who are deficient in any of these areas providing the deficiency can be remedied or reasonably accommodated.