WHAT IS **EMS?**

EMS responds to calls for help, 24/7, in almost every community in the United States. EMS stands for emergency medical services. EMS practitioners include paramedics, EMTs, and others who respond to emergency calls, assess patients, provide treatment, and transport patients to medical facilities for further care.

EMS professionals save lives from heart attacks, strokes and overdoses; treat injuries due to motor vehicle collisions, shootings, stabbings and other violence; and provide care for patients of all ages with a range of serious medical conditions. Some EMS professionals also work with hospitals, mental health providers, substance abuse treatment centers, or hospice agencies to provide preventive or chronic illness care through community paramedicine and mobile integrated healthcare services.

EMS is a vital part of public health, healthcare and public safety, and an essential service to the community.

When the public needs help, EMS is there.

EMS also responds to public health crises and mass casualty incidents. These include natural disasters, such as floods, hurricanes, and tornadoes, and man-made disasters, such as terrorist attacks, explosions and active shooters. EMTs and paramedics bravely serve their communities in the face of localized outbreaks, socially spread illnesses, and global pandemics.

EMS Advocates

Right care, right place, right time

A collaborative of EMS organizations joining together to amplify the value of the EMS profession and advocate for the support needed to serve their communities.

- American Ambulance Association
- American College of Emergency Physicians
- The EMS Compact
- International Association of Fire Chiefs
- National Association of EMS Physicians
- National Association of EMTs
- National Association of Mobile Integrated Healthcare Providers
- National Association of State EMS Officials
- National Registry of EMTs

EMS Operations

What is an EMS system?

EMS systems have multiple components that work together to benefit patients and communities. EMS systems may include:

- Emergency communications centers (dispatch)
- Fire departments/first responders
- Ground ambulance services
- Air medical services (helicopter EMS or fixed wing aircraft)
- Hospital emergency departments (adult and pediatric)
- Trauma centers
- Other specialty care centers, such as burn, cardiac, and stroke centers
- State EMS offices

All of the components within the EMS system must function cohesively to best serve the patient throughout the continuum of emergency care.

How is EMS regulated?

EMS is regulated by state law. Each state and U.S. territory has a lead EMS agency, known as the state EMS office. State EMS offices are often part of the state health department. They are responsible for licensing EMS agencies and personnel, and for the overall coordination and regulation of EMS in the state.

What types of agencies provide EMS?

EMS can be provided by public agencies or private companies. Public EMS agencies include fire departments, and city or county EMS agencies. Private ambulance services can be for-profit or nonprofit. Some ambulance services are run by hospitals.

Public and private EMS agencies often work together to provide patient care. For example: EMS personnel from a fire department may provide first response in a given area. The city or county government may also contract with a private ambulance company to provide transport and additional medical care.

NAEMT and other EMS organizations are working to change laws and regulations that require EMS to take every patient to a hospital emergency department. Instead, EMS could provide treatment in place (TIP) or transport to alternate destinations (TAD), when appropriate.

Volunteer or paid?

About 13% of U.S. EMS professionals are volunteers. Volunteer agencies are most often found in rural areas.

Rural areas with smaller populations are more likely to lack a sufficient tax base or volume of 911 calls to support paid EMS personnel. Many volunteer EMS agencies struggle to recruit and retain volunteers. Some ambulance services combine both volunteer and paid staff.

The various ways of providing EMS – public, private, hospital based, volunteer, paid, and so on – are known as "EMS delivery models."

Why are there so many types of delivery models for EMS?

How a community provides EMS is decided at the local level, based on resources and needs. Communities determine if they want to support a paid service, volunteer or a hybrid service; or if they want to contract with a private ambulance service to augment public resources.

Does EMS have to take patients to the emergency department?

When a member of the public calls 911 for help, laws in every state require EMS to respond. EMS is also obligated to take that person to an emergency department if the person wishes to go. EMS laws in many states prohibit EMS from taking patients to any facility other than the hospital.

However, these rules have changed temporarily in the past to address public health emergencies. Restrictions were lifted enabling EMS practitioners to provide at-home care to patients or take them to alternate destinations for care, avoiding transport to overwhelmed emergency departments.

EMS practitioners provided services ranging from preventive care to acute care in the home. Physicians acknowledged their contributions. "The American people owe a debt of gratitude for the heroic work they have done," stated an editorial in *JAMA Cardiology* on June 19, 2020.

Based on the proven safety and success of EMS efforts during times of crisis, NAEMT and other EMS organizations are working to permanently change laws and regulations that require EMS to take every patient to a hospital emergency department. Instead, EMS could provide treatment in place (TIP) or transport to alternate destinations (TAD), when appropriate.

EMS Staffing and Clinical Services

Who provides EMS?

EMS personnel include emergency medical responders (EMRs), emergency medical technicians (EMTs), advanced EMTs (AEMTs), and paramedics.

EMRs receive a minimum of about 40 to 60 hours of initial education. EMTs receive approximately 150 to 260 hours of initial education, while advanced EMTs receive 400 to 500 hours. Paramedics are required to have significantly more education, a minimum of 1,500 hours, often through a two-year college program.

Paramedics may also earn specialty certifications such as flight paramedic, critical care paramedic or community paramedic. These paramedics may care for critically ill patients being transported in medical aircraft, or by ground ambulance between facilities, such as from an emergency department to a burn hospital, or may provide post-acute patient care.

What is a Basic Life Support (BLS) versus an Advanced Life Support (ALS) ambulance?

Ambulance crews can be either Basic Life Support (BLS) or Advanced Life Support (ALS).

BLS ambulances are usually staffed by EMTs. ALS ambulances must be staffed by at least one paramedic. ALS ambulance crews can perform more medical interventions than BLS crews.

How are EMTs and paramedics licensed?

State EMS offices license EMS personnel. To become licensed, almost all states and U.S. territories require EMTs and paramedics to pass a national certification test, offered by the National Registry of Emergency Medical Technicians (NREMT). EMTs and paramedics must fulfill continuing education requirements every two years.

What is the role of an EMS medical director?

Every EMS agency has a medical director, often a board-certified emergency physician who provides medical oversight and develops protocols.

What medical services do EMTs perform?

EMTs can perform CPR, artificial ventilations, oxygen administration, basic airway management, defibrillation using an AED, spinal stabilization and/or immobilization, monitoring of vital signs and bandaging/splinting, and assisting with childbirth. EMTs can administer glucose, epinephrine for anaphylaxis, sublingual nitroglycerin for chest pain, albuterol for asthma, and naloxone for opioid overdoses. Advanced EMTs can perform additional services. There can be variations depending on state laws and EMS medical director decisions at the local level.

EMS faces a workforce shortage crisis, which has forced some EMS agencies to curtail their services. NAEMT and other EMS organizations are advocating for more resources to help with recruiting and retention so EMS agencies can continue to serve the public in the way the public has come to expect.

What medical skills does a paramedic perform?

A paramedic can perform all of the skills performed by EMTs and advanced EMTs, plus life-saving airway procedures including: endotracheal intubation, chest decompression, cricothyrotomy and direct laryngoscopy. Paramedics can also interpret 12-lead electrocardiographs (ECGs), perform manual defibrillation, maintain an infusion of blood or blood products, give thrombolytics (clot-dissolving medications), and monitor central lines.

The National Highway Traffic Safety Administration (NHTSA) publishes the National EMS Scope of Practice Model, which recommends which services can be provided at what level of credential. States and EMS medical directors use the scope of practice model as a guide.

What is community paramedicine and mobile integrated healthcare?

Many people call 911 for medical, psychological and social issues for which they need treatment and support, but not necessarily emergency care. EMS is often called to help people with chronic illnesses, such as congestive heart failure or diabetes, who lack primary care and instead rely on the emergency medical system. Others are elderly, isolated and lack social support, and call 911 because they don't know where else to turn. Substance abuse and mental health crises are other common reasons for EMS dispatch.

To improve care for these patients and relieve strain on EMS and emergency departments, some EMS agencies offer programs known as mobile integrated healthcare or community paramedicine (MIH-CP). EMS typically partners with hospitals, hospices, home health or behavioral health agencies to provide services such as:

- Post-hospital discharge follow-ups to prevent hospital admissions or readmissions.
- Care coordination to navigate patients to the best sources of health care or social services to meet their needs.
- Transport to destinations for care other than emergency departments.
- Telemedicine to connect patients with physicians at other locations.

What major issue is facing the EMS workforce?

EMS faces a workforce shortage crisis, which has forced some EMS agencies to curtail their services. EMS organizations are advocating for more resources to help with recruiting and retention so EMS agencies can continue to serve the public in the way the public has come to expect.

EMS Finances and Reimbursement

How is EMS funded?

EMS has two main sources of revenue: local taxes/municipal budgets and fee-for-service reimbursements from Medicare, Medicaid and commercial insurers.

Public EMS agencies typically receive taxpayer support to help fund operations and pay staff, as well as billing a fee-for-service to patients, insurers, Medicare, and Medicaid. Volunteer organizations may also receive some tax support. Private ambulance companies typically receive little to no taxpayer support but instead rely on fee-for-service billing.

What services can EMS bill for?

Largely, for transporting patients to a hospital, not for providing medical care. On any given day, EMS may restart a heart due to cardiac arrest; resuscitate a child after a near-drowning; or stop life-threatening bleeding. EMS administers medications, splints compound fractures, and opens airways to enable severely injured patients to breathe.

Yet EMS is classified as a *transportation* provider, not a healthcare provider, by CMS and insurers. EMS is paid a fee for transporting a patient to the hospital (either at a Basic Life Support or Advanced Life Support rate), plus mileage.

There are a few exceptions. Some commercial insurers pay EMS for some out-of-hospital patient care services, and a handful of states now allow EMS reimbursement for providing some patient care services to Medicaid recipients. But, these exceptions are minimal.

What happens when EMS responds, but the patient does not want to go to the hospital?

If EMS provides care on scene but does not transport the patient to the hospital, EMS does not receive reimbursement.

Responses without transports are common. Of the 42.6 million EMS responses that occurred in 2018, only 30.9 million resulted in transports, according to data from state EMS offices. That means over 11 million responses were uncompensated.

In addition to responses without payment, maintaining 24-7 readiness to respond is also costly for EMS agencies. Many EMS agencies also provide other services at no charge to the community, such as public education around injury prevention, car seat installation, CPR and emergency preparedness.

How is reimbursing EMS only as a transportation provider, and failing to compensate EMS for providing medical care, hurting patients and communities?

Emergency departments are a very expensive source of care. Incentivizing EMS to take patients only to the emergency department drives up healthcare costs. Instead, EMS should be incentivized to deliver the right care, at the right time, in the right place.

How are NAEMT and other organizations working to change this outdated EMS reimbursement model?

Through legislation that reimburses EMS for providing treatment in place (TIP) and transport to alternate destinations (TAD).

Treatment in place allows EMS practitioners to provide care for patients in their homes or on scene, rather than immediate hospital transport. The idea is to provide timely and appropriate medical care, while minimizing unnecessary hospital visits. This alleviates strain on healthcare resources and reduces costs. Patients also benefit by avoiding unnecessary exposure to the hospital environment and long emergency department wait times.

EMS is reimbursed for transporting patients, not for providing medical care. This must change.

Treatment in place may include pain management, wound care, medication administration or monitoring vital signs. EMS practitioners must follow established protocols and guidelines to ensure patient safety. Treatment in place may be used in combination with telemedicine, in which EMS practitioners on scene can consult with a physician in clinics or hospitals.

Transport to alternate destinations can also reduce hospital overcrowding and costs while providing patients with faster access to the right care for their condition. Alternate destinations may include urgent care centers, mental health facilities, substance use treatment centers, or other specialized care centers, depending on patient needs and the resources available in the community. TAD protocols and guidelines help EMS providers determine when it's appropriate to transport a patient to an alternative destination.