

VIEWPOINT

Realignment of EMS Reimbursement Policy

New Hope for Patient-Centered Out-of-Hospital Care

Kevin G. Munjal, MD, MPH, MSCR
Departments of
Emergency Medicine,
Population Health
Science & Policy, and
Prehospital Care, Icahn
School of Medicine at
Mount Sinai, New York,
New York.

Gregg S. Margolis, PhD, NRP
Health Policy
Fellowships and
Leadership Programs,
National Academy
of Medicine,
Washington, DC.

Arthur L. Kellermann, MD, MPH
F. Edward Hebert
School of Medicine,
Uniformed Services
University of the Health
Sciences, Bethesda,
Maryland.

Corresponding Author: Kevin G. Munjal, MD, MPH, MSCR, Icahn School of Medicine at Mount Sinai, One Gustave L. Levy Pl, PO Box 1620, New York, NY 10029 (kevin.munjal@mountsinai.org).

Substantial efforts have been made over the past decade to move the US health care system away from fee-for-service reimbursement toward alternative payment models, with the goals of expanding access, improving quality, and reducing medical costs. However, financing for emergency medical services (EMS) continues to incentivize transport to the emergency department (ED), regardless of the needs or desires of patients. In 2016, EMS agencies in the United States responded to an estimated 22.0 million 911 calls and transported an estimated 14.6 million patients to a hospital. Of those transports with complete billing information, 33% were billed to Medicare, 31% to private insurers, 20% to Medicaid, and 15% were self-pay.¹

Experts have long called for realigning reimbursement policy to support a more patient-centered approach to out-of-hospital emergency care. On February 14, 2019, the Center for Medicare & Medicaid Innovation (CMMI) announced the Emergency Triage, Treat, and Transport (ET3) model.² This voluntary, 5-year payment model will allow EMS agencies to be reimbursed for handling 911 calls with dispositions other than transportation to an ED, including nurse triage, treatment by a qualified health care practitioner either on scene or via telehealth, or transporting patients to an urgent care center, or primary care physician office.

The decoupling of EMS assessment and treatment from ED transport is a major development for out-of-hospital care. This approach is consistent with a 2007 Institute of Medicine recommendation “to evaluate the reimbursement of emergency medical services” and follows the recent release of the EMS Agenda 2050 document, commissioned by the National Highway Traffic Safety Administration, which articulated a future in which EMS is safe, reliable, efficient, equitable, innovative, and seamlessly integrated into health care.³ Together, these developments have the potential to promote significant innovation within the EMS community.

Moving Beyond Transport

EMS services are generally underfunded and have historically lacked financial motivation to invest in approaches that could help determine the most appropriate level of care. The CMMI announcement does not indicate an intended reduction in Medicare's annual ambulance expenditures of \$5.5 billion, but rather cites a projected \$560 million in annual savings from reduced ED expenditures if 15.6% of Medicare ambulance transports could be managed outside a hospital ED.⁴

With the ET3 model, incentives are now better aligned for EMS to pursue new communications technologies, decision-support applications, and point-of-care laboratory testing that could enable more patient-centered care to help avoid transport. The ET3 model is also likely to

promote new collaborations between EMS and various community resources, including federally qualified health centers, dialysis centers, and substance abuse treatment programs. Other partnerships, such as with traditional taxi services or app-based ride services, may develop and could give patients more affordable transportation options.

In rural and remote areas, EMS services could potentially manage an array of problems on scene with telehealth support, rather than transporting every patient (often requiring a lengthy ambulance ride) to a hospital ED. Likewise, patients receiving hospice care or palliative care may be treated more humanely in their home rather than in the hospital ED.

EMS systems participating in the ET3 model also may be able to expand their efforts to promote injury and disease prevention. Because EMS personnel already make “house calls” and regularly encounter vulnerable populations, they are ideally positioned to identify health hazards and connect patients to community-based resources such as home health, housing assistance, and food delivery programs.

Remaining Barriers

Despite the potential for the ET3 model to transform EMS, several issues must be addressed to ensure that the concept moves from demonstration project to established policy.

Patient Safety

While the ET3 model is designed to unlock potential savings opportunities through reduced ED utilization, EMS agencies must ensure that patients who require ED care receive that service. It will, therefore, be important to demonstrate that EMS professionals can safely and consistently identify patients with nonemergency conditions. A 2009 meta-analysis of paramedic accuracy in determining medical necessity from 13 studies calculated negative predictive values of 91% for ambulance transport and 68% for ED evaluation.⁵ A more recent analysis involving 503 patients and 45 paramedics found a similar under-triage rate of 19.3%.⁶

With additional education, greater use of evidence-based algorithms, clinical decision support, and online medical control, it should be possible to improve paramedics' decision-making. A study performed by Wake County EMS demonstrated that a validated clinical protocol avoided transport for 65.8% of 840 low-acuity falls among older adults and achieved a negative predictive value of 98% for a time-sensitive condition.⁷ This same group created another protocol that triaged 226 patients with minor behavioral health symptoms, such as substance use disorders and depression, to a specialty center, with only 5% requiring secondary transport from the specialty center to the ED.⁸

In another study, Houston EMS demonstrated safer decision-making using physicians via telehealth. Based on an analysis of 5570 patients treated by EMS in 2015, the project achieved a mean 44-minute reduction in EMS call time (from 83 to 39 minutes), and 75% of patients were safely transported by taxi (3751 patients) or treated on scene without transport (419 patients).⁹

Measuring and Ensuring Quality

Within the ET3 model, the Centers for Medicare & Medicaid Services includes a 5% upside-only incentive based on as-yet unannounced quality metrics. This represents one of the first pay-for-performance initiatives for EMS and will hopefully help to ensure safety of the new initiative. Measures will be needed to assess 911 call handling, nurse triage, treat-and-release policies, alternative destination management, and telehealth. However, quality measurement in EMS remains underdeveloped. With the exception of a few well-funded disease-specific registries, it has proven difficult for EMS services to obtain data on patient outcomes.

EMS agencies will more likely succeed in the ET3 model if they can access and send electronic health information to other health care entities. This could serve to improve triage, treatment, and transport decisions, and could enable notification of the patient's primary care physician, care manager, or both of the EMS encounter and needed follow-up.

States, Municipalities, and Other Payers

EMS is primarily state-regulated with substantial variation in system design and clinical protocols. As a result, the ET3 model may prove more feasible in some jurisdictions than others. In highly restrictive regulatory environments, this model may provide political impetus for reform. However, some hospitals and EDs may oppose giving EMS the flexibility to manage patients in less costly ways.

Medicare officials are encouraging multipayer arrangements so that EMS agencies can service all patients in a region. While most patients will benefit from more coordinated, patient-centered out-of-hospital care, Medicaid beneficiaries have particularly high EMS

utilization rates, thus giving state governments the greatest opportunity to benefit from reduced health care spending.

Local governments often operate local 911 centers, making them eligible to apply for ET3 model funding to support a medical triage function. Despite having substantial influence over the provision of EMS, many communities currently do little more than monitor EMS response times. The 5% quality incentive may encourage more meaningful priorities, such as improving patient experience and measuring clinical outcomes.

Unintended Consequences

The ET3 program only applies to patients who access the 911 system, as opposed to directly contacting a health system call center. As a consequence, innovative programs that are virtually identical to the ET3 model will be ineligible for reimbursement despite having demonstrated substantial savings. A future refinement of the ET3 program might reimburse all EMS systems providing care, regardless of how the call for out-of-hospital emergency care is first placed.

Another concern is the potential for abuse of 911 services to secure convenient treatment at home, taxi vouchers to an ED or urgent care center, or quicker appointments. EMS systems will need to monitor call volumes to determine if the ET3 program incentivizes increased utilization of 911 for low-acuity conditions. If this proves to be problematic, additional measures may be required to deter misuse of the system. However, recognizing human behavior, some increase in call volume may need to be accepted, if offset by increased efficiency and therefore increased availability of 911 resources for life-threatening emergencies.

Conclusions

The recent CMMI announcement represents an important development for EMS. This is a first step toward the financial and delivery system reforms needed to allow out-of-hospital care systems to deliver higher-quality, patient-centered, coordinated health care that could lower costs. If CMMI and the EMS community can successfully address patient safety, quality, and local and state regulation and mitigate unintended consequences, the ET3 model experiment could help EMS realize its full potential.

ARTICLE INFORMATION

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