

Management and Financing of Emergency Medical Services

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Like other organizations, emergency medical services (EMS) systems have revenues and expenses. The unpredictability of calls and the oftentimes inefficient nature of EMS operations make EMS management and financing difficult. Annually, EMS costs patients, insurers, and the federal government billions of dollars.¹ In fiscal year 2002, Medicare spent \$3 billion on ambulance transportation.¹ The insufficiency of reimbursement for the total cost associated with 24 hour, 7 days per week coverage is the subject of constant debate and discussion among EMS managers. Recent modifications to the reimbursement formula used by the Centers for Medicare and Medicaid Services (CMS) has both benefited and disadvantaged many of the more than 18 000 EMS systems in America,²⁻⁴ reducing the gap between costs and revenues for some while increasing that gap for other EMS systems. The purpose of this commentary is to describe the major components of EMS financing and management and to discuss the current and ongoing challenges in EMS financing.

Revenues to an EMS system include subsidies from local governments, income from special event support, and reimbursement for transportation of patients. Fifty-five percent of revenues for an average EMS system come from Medicare, 15% from Medicaid, 5% from private payment, and 25% from the commercially insured.⁵ Personnel and benefits are the largest fixed expenses for the average EMS system.⁶

Revenues and expenses are not completely uniform across systems. For volunteer-staffed EMS organizations in very rural areas, processing bills for transportation is either not possible or an unattractive practice that would take away from the volunteer nature of the organization. Thus, most revenues for such organizations come from donations and support from local governments. In addition, submitting a bill to Medicare or Medicaid does not guarantee payment. In 2000, the average collection rate for bills submitted by North Carolina EMS systems was 25%.⁷

The average cost for an ambulance transport is \$415, but ranges from \$99 to \$1218. Average costs in very rural areas are significantly higher than costs in urban areas, \$538 and \$409, respectively.⁸ Ten years ago, the estimated average charge for transport to the emergency department approached \$400.⁹ It is unclear what the true average charge for an EMS transport actually is today. In some communities, a ride to the hospital or

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elsewhere can be as high as \$700.¹⁰ For a trip in a helicopter, the cost can reach thousands of dollars.^{11,12} A combination of factors result in high transport costs including the need to cross subsidize transport for the indigent and uninsured and the cost of 24 hours a day readiness. Extremely high rates of turnover among personnel also contribute to inefficient budgetary practices.

The medical necessity of EMS transportation is used by CMS to determine whether or not a patient's transportation

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will be paid. For some systems, convincing the intermediaries that an ambulance transport was medically necessary is a daily and ongoing battle. Submitting multiple claims for the same ambulance transport is not uncommon. In fiscal year 2002, the Health and Human Services Office of Inspector General (OIG) determined that 25% or \$402 million dollars in ambulance transports did not meet the government's criteria for medical necessity.¹ For emergency ambulance transports, CMS defines medical necessity as a medical condition that manifests itself with acute symptoms of such severity that the absence of immediate medical attention would jeopardize the patient's health.¹ For nonemergent transportation, a ride in an ambulance is medically necessary when the patient is bed-confined and/or his/her condition is such that other methods of transportation are contraindicated.¹ The OIG report identifies transports to dialysis centers as a significant source of unnecessary transports.

Financial Obstacles

Due to the rapid increase in expenditures and difficulties in administering benefits, the federal government in the Balanced Budget Act of 1997 called for ambulance reimbursement to be placed on a fee schedule.² The act proposed an implementation date of January 1, 2000. Due to the quick action and concerns of numerous EMS administrator groups throughout the United States, CMS agreed to enter into a negotiated rule making process that ultimately led to a proposed fee schedule implementation date of April 1, 2002 and a final implementation date of January 1, 2006.

While EMS administrators were able to buy some time before implementation, the final rule is now in place and the financial effects are being felt by EMS providers throughout the nation. The final rule led to the establishment of a national base rate of \$171 for the transport of a patient to a medical facility. This \$171 rate is supplemented by adjustment factors that modify reimbursement based patient severity, region of the country, and a special adjustment for the super rural regions. However, it still falls short of covering the actual cost of transport for most EMS providers.⁴

The national base rate of \$171 dollars was chosen largely on the direct cost of providing care and transporting a patient (personnel cost, equipment cost, supply cost) and failed to incorporate the significant indirect cost associated with readiness to respond to a request for service. Factoring in the total cost of providing the temporal and geographical demand coverage necessary to respond in a timely manner to medical and surgical emergencies increases per transport estimates to as much as \$300 to \$400. This gap between the established national rate and the total estimated cost per transport is creating a critical financial situation for many EMS providers. Some in the EMS community have even begun litigation against the government.¹³

Compensating for this fiscal gap between the Medicare and Medicaid reimbursement is critical when one considers that this reimbursement accounts for as much as 64% of most EMS

providers' patient mix. Since it is mandated that EMS providers accept this reimbursement by assignment it means that increasing rates does little to increase revenue. This leaves EMS providers with the options of either increasing their local tax subsidy or decreasing operation costs. Due to widespread fiscal pressures that are being exerted on most local municipal agencies, EMS providers are meeting enormous resistance when requesting increases to local taxes to cover the cost of providing EMS. This only leaves the second option, which is to increase operational efficiency in an attempt to decrease overall operational cost.

One of the first steps many EMS providers need to take in deciding how they will compensate for decreased revenues is to spend some time developing a clear understanding of the purpose and role of their service within a given community. Many providers find themselves involved in functions other than providing emergency care. These services include things such as technical rescue, support for hazard material incidence, and other uncompensated services. In some communities, the EMS provider may be the only provider of these services, but in other communities EMS providers duplicate services more appropriately provided by other public service agencies. The decision to provide these supplemental services should be based on the needs of the community and its willingness to financially support these added services. It is important that EMS providers remember their first priority is to provide emergency medical care and transportation of patients.

The second highest leverage area of improvement that could be undertaken by many EMS providers is in the area of resource deployment. In the mid-1980s, the EMS industry was introduced to the concept of System Status Management (SSM).¹⁴ System Status Management is a methodology used to determine the number of ambulances needed for each hour of the day, each day of the week and where these ambulances should be placed in order to respond in a timely manner to a request for emergency assistance. While the knowledge of deploying EMS resources has expanded from the use of SSM to the existence of sophisticated computer simulation models that can predict geographical grid level coverage capability, only the most sophisticated EMS systems in the nation have even adopted the use of SSM. The use of these methods could not only decrease operation costs for most EMS providers, they could also improve their ability to respond in a timely manner to the aid of sick and injured patients.

While the two issues mentioned above are important for EMS providers to address, there are many other areas in which current EMS operations could be improved and the financial viability of EMS sustained. These include things such as the implementation of more efficient and less costly education and training methods, the improved management of supply and equipment inventories, and improvements to EMS billing processes. Addressing these issues can improve EMS care of the sick and injured. However, even after implementing these ideas, the sustainability of EMS financing and management will likely continue to be a challenge for many years to come. **NCMJ**

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