



GUIDE

# Telemedicine as a Tool for EMS



## Telemedicine as a Tool for EMS

The traditional model for civilian emergency medical service began in the 1800s when horse-drawn carriages transferred cholera patients to local hospitals. The practice was considered revolutionary at the time, and the Times reported with astonishment: “The curative process commences the instant the patient is put into the carriage.”

From automobiles to state-of-the-art medical equipment, emergency response has evolved since days of the horse-drawn-carriage. Yet from its inception, the procedural aspect has remained relatively the same; the first responder assesses the patient, administers emergency care, and transports the patient to a hospital for formal diagnosis. It hasn't been until the last decade that the model has been re-evaluated - largely due to the widespread adoption of telemedicine.

Telemedicine, sometimes referred to as telehealth, is the practice of a doctor examining a patient remotely through video conferencing. Using this practice in emergency response, a doctor can assess patient vitals, consult with the paramedic, and conduct an examination -all through a hand-held device in the field. Importantly, telemedicine allows the doctor to make an on-the-spot determination if emergency transport is truly needed, or if an alternative route can be taken.

Telemedicine has taken the emergency service industry by storm in recent years, with cities across the nation adopting pilot programs. But what is the true value of using telemedicine in an emergency response situation, and whom does it benefit? Read on for a full breakdown.

# 1

## Patients



Studies have reported that between 10 and 40 percent of patients who request response teams do not require an emergency transfer.<sup>1</sup> Through the use of telemedicine, a doctor can assess if a patient requires emergency transport, or if an alternative care plan can be provided. In a recent pilot conducted by Wake County Emergency Medicine and RelyMD, 90% of emergency transfers were avoided through the use of telemedicine. The ability to receive a diagnosis in the field has tremendous potential for improving the quality of care for a patient - saving them precious time and money. Not only that, avoiding unnecessary transfers of older generation patients has the potential to reduce Medicare spend, making a huge impact on society as a whole.

# 2

## EMS Providers



The role of the EMS practitioner has shifted in recent years. With emergency departments and hospitals becoming overcrowded, communities have looked to expand the primary care role of first responders. This concept is frequently called "community paramedicine". Telemedicine has become an increasingly attractive tool for EMS units looking to grow into the community paramedicine model. Additionally, the ability to administer care in the field and avoid unnecessary transfers has had the added benefit of boosting paramedic's morale.

# 3

## Rural Communities



Patients who reside in rural communities are often hard-pressed to find sufficient access to medical resources. Unfortunately, lack of health care offerings can lead to patients using EMS as a way to receive basic healthcare. The result is overburdened EMS teams and emergency departments. When EMS providers deploy telemedicine in rural communities, unnecessary emergency transports and hospital admissions can be avoided.

# 4.

## Urban Communities



An estimated 240 million calls are made to 911 in the United States each year, and America's cities shoulder the majority of that burden. High emergency call volume puts a strain on urban communities. Telemedicine allows urban paramedics to decrease unnecessary ambulance trips, alleviate wait times and dedicate their time to patients in greater need.

# 5.

## Hospitals & Health Systems



It is estimated that between 14 and 27 percent of all emergency department visits are "non-urgent" and could take place in a different setting, such as a doctor's office. Unnecessary emergency room admission has a huge financial cost on the industry—estimated to be up to \$4.4 billion annually.<sup>3</sup> The potential for doctors to provide non-emergent care to patients through telehealth has huge financial implications for health systems.

DURING ONE EMS TELEMEDICINE PILOT USING RELYMD,

**One North Carolina EMS Provider Prevented  
90% of Unnecessary Transfers.**

# 6.

## Insurance Providers



A recent study showed 4.5 percent to 8 percent of patients seeking emergency services account for 21 to 28 percent of all emergency department visits. 4 (2010 study published in the Annals of Emergency Medicine). When a patient uses emergency transport as a way to receive their primary healthcare needs, it takes a toll on insurance companies shouldering the bill. The use of telemedicine in the field can divert many of these “frequent flyers” and other unnecessary emergency transports to alternative care plans, slashing costs for the companies that insure them.

Ready to learn how telemedicine can help your EMS practice? If you are interested in exploring if telemedicine is the right fit for your EMS unit, RelyMD can help.

### About RelyMD

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- On-demand, board certified emergency medicine physicians
- Customized programs to fit your emergency service needs
- RelyMD is staffed by Wake Emergency Physicians, PA



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