New CDC Studies on EMS and Prevention Opportunities

Older adults seen by EMS after a fall may be more receptive to fall prevention information

Among people aged 65 years and older, falling is the leading cause of emergency department visits. Emergency Medical Services (EMS) are often called to help older adults who fell, with most resulting in a transport to a hospital. “Older Adult Falls Seen by Emergency Medical Services Providers: A Prevention Opportunity” is a new CDC study published in the American Journal of Preventive Medicine (AJPM). This study’s main goals were to determine where falls occurred and under which circumstances patients were transported by EMS, as well as to identify future fall prevention opportunities.

Study Findings

The study shows that 17% of all 911 calls for adults 65 and older were from falls. More than one in five (21%) of these emergency 911 calls did not result in a patient being transported to a medical facility by EMS. The most frequent reasons given for non-transport included patients refused care (57.0%), were given emergency treatment and released (20.9%), and cases when no treatment was required (19.2%). Patient demographics, such as gender, age, and location of the fall, also had a large influence on the transport decision.

Since most falls occur at home (60.2%), this creates teachable moments with EMS providers who could provide important fall prevention information to older adults in relatively private settings. This may be more acceptable to those older adults who might be worried about keeping their independence as they grow older.

Between 1994 and 2008, the number of transports for older adults increased 75%. As the population continues to age rapidly, more older adults will fall, and the responsibilities of EMS to help these patients will increase. Although there has been no widespread national effort to have EMS providers incorporate fall prevention into their activities, this study offers additional evidence that incorporating fall prevention into EMS calls is a feasible and underutilized prevention opportunity.

Bystander intervention before EMS arrival indicates areas for future first aid training

A second CDC study, “Bystander Intervention Prior to the Arrival of Emergency Medical Services: Comparing Assistance across Types of Medical Emergencies”, was recently published in the journal Prehospital Emergency Care. This paper addresses the situational factors of the bystander offering help in medical emergencies. The study used a large database of real-world
events documenting bystander assistance from the 2012 National EMS Information System (NEMSIS) which included over 16.2 million records of 911 calls populated by EMS providers in 42 states. The goal was to determine which factors influenced bystander interventions to give aid and assistance during a medical emergency.

**Study Findings**

The likelihood of a bystander intervening is dependent on the type of medical emergency. Bystanders were most likely to intervene when the patient had cardiac distress/chest pain and were least likely to intervene when there was a perceived psychiatric disorder or after a sexual assault. Although bystanders are not always present at the scene, the results of this research help us better understand patterns of intervention when bystanders are present. For example, bystanders are more likely to help when there is a higher risk of death for the patient.

Future first aid trainings could therefore be tailored to assist with the most frequent types of injuries and illnesses found in this broad study, such as traumatic injury, cardiac distress, or when the symptom is pain or change in responsiveness. First aid training programs could also focus on developing and encouraging bystander interventions when situations are less life threatening. Additional analysis of this data, looking at specific bystander actions under specific medical emergencies, could further strengthen first aid training programs. These actions can enhance future bystander assistance and help save more lives.

**Learn More**

For more information on the research articles featured in this announcement or for additional resources:

- “Older Adults Seen by Emergency Medical Service Providers: A Prevention Opportunity”
- "Bystander Intervention Prior to The Arrival of Emergency Medical Services: Comparing Assistance across Types of Medical Emergencies"
- CDC Older Adult Falls page