



Wilde (2012)

This study looked at 73,706 EMS responses to patients in the Salt Lake City area. The author found that “on average, a minute increase in response times increases mortality by between 8 (measured 1 day after the initial incident) and 17% (measured 90 days after the initial incident). In addition, the author reported that **“women and those over age 65 appear to be most affected.”**”

Wilde ET: Do emergency medical system response times matter for health outcomes? Health Economics. 2012 22:790-806)

Blanchard (2012)

In an analysis of 7,760 urban EMS high-priority emergency responses to adult patients, mortality risk increased linearly from 5% with a 4-<5 minute response interval to nearly 10% with an 8-<9 minute response interval. There was a **35% greater mortality in patients who had a greater than 4 minute response interval** compared to less than 4 minutes.

[Blanchard IE, Doig CJ, Hagel BE et al: Emergency medical services response time and mortality in an urban setting. Prehosp Emerg Care. 2012 Jan-Mar;16(1):142-51.

Nichol (1996)

This early study analyzed data from 36 published articles on survival from sudden cardiac arrest. It concluded that there was an **8% average increase in survival for every minute reduction in EMS response time.**

Nichol G, Uetsky AS, Stiell IG, et al: Effectiveness of emergency medical services for victims of out-of-hospital cardiac arrest: A metaanalysis. Ann Emerg Med June 1996; 27:700-710.

Lerner (2012)

This American Heart Association Scientific Statement includes the following:

- “Just-in-time education in the form of telephone CPR instructions, referred to as CPR prearrival instructions, can provide callers with step-by-step instructions on how to perform CPR.”
- “CPR prearrival instructions can potentially double the proportion of arrest patients who receive bystander CPR and in turn help communities achieve bystander CPR in the majority of arrest patients who collapse before EMS arrival.”
- “More comprehensive implementation of CPR prearrival instructions **has the potential to save thousands of additional lives each year.**”

And recommends that:

- “Callers to community emergency response numbers (eg, 911) should be formally and systematically questioned to determine whether the patient may have had a cardiac arrest. When a potential cardiac arrest patient is identified, CPR prearrival instructions should be immediately provided to assist bystanders if CPR is not already ongoing.”

Lerner EB, Rea TD, Bobrow BJ, et al: Emergency Medical Service Dispatch Cardiopulmonary Resuscitation Prearrival Instructions to Improve Survival From Out-of-Hospital Cardiac Arrest : A Scientific Statement from the American Heart Association. *Circulation* 2012, 125:648-655.