

Paramedic – Evidence Based Medicine (P-EBP) Program

Paramedic CAT (Critically Appraised Topic) Worksheet

Title: Pre-hospital emergency response times and patient mortality

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Clinical Scenario: Paramedics are experiencing a higher than normal call volume in their response area. A 911 call is received stating that a patient was involved in a single vehicle roll over MVA, has been ejected from the car and according to bystanders, has multiple injuries. Paramedic crews are busy and are unable to respond until greater than 8 minutes after the call is received.

PICO (Population – Intervention – Comparison – Outcome) Question:
In high acuity pre-hospital patients, does a delay in response time vs. a standard response time, affect patient mortality.

Search Strategy: (Emergency) AND (Pre-hospital) AND (Response time)

Search Outcome: 308 results

Relevant Papers:



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P. PONS, 1998	HIGH ACUITY PRE-HOSPITAL EMERGENCY PATIENTS	RETROSPECTIVE STUDY LOE II	SURVIVAL TO DISCHARGE WITH LESS THAN 8 MIN RESPONSE TIME SURVIVAL TO DISCHARGE WITH GREATER THAN 8 MIN RESPONSE TIME.	93% (6928) 91% (1899)	- ACURACY OF DISPATCH SYSTEM AND TRAUMA CODES + WELL DONE DATA COLLECTION + WELL MATCHED TREATMENT AND CONTROL GROUPS
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Comments:

- Patients who were deceased upon arrival of EMS after a greater than 8 min response time cannot be included into this study since these patients were not transported to an acute care facility.

Consider: *Why would you NOT change practice, based on this article?*

There was little effect on patient outcome when a response time of greater or less than 8 minutes was used.

Clinical Bottom Line:

A response time of less than 8 minutes was not associated with an increased survival to hospital discharge. However, a response time of less than 4 minutes identified a survival benefit.

References: Peter T. Pons, M.D, Jason S. Haukoos, M.D ,M.S, Whitney Bludworth, M.D, Thomas Cribley, EMT-P, Kathryn A. Pons, RN, Vincent J. Markovchick, M.D (2005) Paramedic Response time : Does it Affect Patient Survival? Acad Emerg Med; 7:594-600.