

Does time taken by paediatric critical care transport teams to reach the bedside of critically ill children affect survival? A retrospective cohort study from England and Wales.

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BACKGROUND: Reaching the bedside of a critically ill child within three hours of agreeing the child requires intensive care, is a key target for Paediatric Critical Care Transport teams (PCCTs), to achieve in the United Kingdom. Whilst timely access to specialist care is necessary for these children, it is unknown to what extent time taken for the PCCT to arrive at the bedside affects clinical outcome.

STUDY POPULATION : The DEPICT cohort comprised all emergency (nonelective) transports of children under 16 years old undertaken by a PCCT and admitted to an NHS PICU in England and Wales between 1 January 2014 and 31 December 2016.

METHODS: The DEPICT Study (Differences in access to Emergency Paediatric Intensive Care and care during Transport) was a national mixed-methods study, investigating how differences in the timeliness of access to a PCCT and aspects of care provided by PCCTs during transport to PICU affect outcomes and experience for critically ill children and their families. This paper, examined the impact of time it took for the retrieval team to arrive at bedside, and delay thereof, on 30-day mortality (primary outcome) and other clinically relevant secondary outcome.

ACADEMIC P.E.A.R.L.S

Pediatric Evidence And Research Learning Snippet



Pediatric Transport Team: Time to reach sick kid at home : Early the better.

RESULTS: In 87% of patients, the retrieval team reached within three hours . It was observed that , time-to bedside did not impact on the odds of mortality 30 days after PICU admission (time to arrive at bedside ≤ 60 min :OR: 1.06; >180 minutes, : OR: 0.82).

Conclusion: The authors concluded that 30-day mortality was not associated with time-to-bedside (at least for times below six hours). However in this cohort, time to bedside more than three hours was unusual.

EXPERT COMMENT

“Centralisation of inter-hospital transport allows for the concentration of expertise and specialist skills, but potentially makes reaching remote hospitals quickly more difficult. This was the first large scale nationwide study to investigate the impact of time-to-bedside on a critically ill child. The authors demonstrate that emphasis is not just on how early the retrieval team can reach the patient (especially for transport times less than 6 hours), but on multiple other factors as patient condition , diagnosis etc. This data is still not robust enough to relax current time to bedside targets. Such data needs to be generated for our country and specialist retrieval team targets need to be optimised in accordance with the generated data.”

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With warm regards,

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Reference

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