Emergency Helicopter Airlifts Help the Seriously Injured

Patients transferred to hospital via helicopter ambulance tend to have a higher survival rate than those who take the more traditional road route, despite having more severe injuries. The research, published in BioMed Central's open access journal Critical Care suggests that air ambulances are both effective and worthy of investment.

Helicopters have been used as emergency ambulances for the past 40 years. For much of that time there has been ongoing debate about the cost of the service compared to the benefit in saving lives.

The TraumaRegister DGU® of the German Society for Trauma Surgery collects anonymous data from more than 300 European medical centres. Researchers from hospitals across Germany used information from this register to evaluate the effectiveness of helicopter ambulances.

Of 13,000 patients included in the study, a third were transported to hospital by helicopter. These patients tended to be more seriously injured, with chest and abdominal injuries requiring more extensive on-scene treatment. While in the ICU they were more likely to suffer complications, such as sepsis and multiple organ failure, and consequently require more time in hospital before being released home. But these patients had a survival benefit compared to the ones transported by road.

Patient diagnosis and quality of in-hospital care seemed to be the same regardless of methods of being transported to hospital so the reason behind this benefit must lie elsewhere. Dr Hagen Andruszkow from the University Hospital Aachen, Department of Trauma and Reconstructive Surgery, said, "These patients tend to be the most severely injured – nevertheless the care that they receive from medical staff at the scene and during transport, plus speed of transport, means that patients are more likely to survive. This needs to be taken into account when deciding to start or continue with air ambulance services."

Full bibliographic information:

- Survival benefit of helicopter emergency medical services compared to ground emergency medical services in traumatized patients; Hagen Andruszkow, Rolf Lefering, Michael Frink, Philipp Mommsen, Christian Zeckey, Katharina Rahe, Christian Krettek and Frank Hildebrand; Critical Care 2013, 17:R124 doi:10.1186/cc12796

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