

By Road or By Air? An Ambulance Costs Analysis



A recent study, published in the *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine*, has analysed and compared the costs involved in the three types of intensive care transports commonly used in Sweden.

The aim was to evaluate to what extent the road ambulance, rotor-wing ambulance and fixed-wing ambulance differed in their cost-effectiveness. The assessment was based on the analysis of travel distances compared to the time required to complete the patient transport journey, with all of the three means of travel able to manage the same secondary intensive care patient transport mission.

Distances and transport times data for consecutive urgent intensive care transports into the regional tertiary care hospital in Sweden's northern region were prospectively collected.

Based on these numbers, the study authors generated a cost model that included fixed and operating costs generated by the various ambulance systems. The next step was to develop distance-cost and time-cost estimations for the fixed-wing, rotor-wing and road ambulances.

Analysis revealed that for shorter transport distances within 250 km the road ambulance cost was relatively less, however it was also relatively time ineffective.

In comparison, the rotor-wing transport system was the most expensive, irrespective of distance, while it was most time-effective for a trip of up to 400-500 km.

The most cost-effective means for longer distances of up to 300 km turned out to be the fixed-wing systems, which also proved time-effective for travelling more than 500 km.

The authors concluded that, based on their economic model generated from this observation of regional ICU patient transports, longer ICU patient transports were best conducted in fixed-wing transport systems, which are both cost and time effective compared to helicopter-based systems.

[Source: Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine](#)

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