Introduction

- EMS professionals must decide the best way to transport trauma patients from the scene of the injury to a hospital—typically choosing between ground EMS (GEMS) and helicopter EMS (HEMS).
- Few objective guidelines exist to guide HEMS utilization.
- The goals of this review were to elucidate patient characteristics in which HEMS provides a survival benefit.

Methods

- PubMed search utilizing MeSH search terms and keyword searches.
- Screened 306 studies. 52 were considered for inclusion, 41 were included in final list after independent review.
- Inclusion criteria:
  - HEMS vs GEMS survival outcomes (primary outcome)
  - Only trauma
  - 2010 or later
  - Transport from scene of injury
  - ISS or equivalent

Limitations

- The quality of evidence surrounding HEMS vs. GEMS outcomes is poor, largely due to the methodological limitations of observational study.
- The ability to draw objective comparisons between studies is limited by the heterogeneity of the existing data.

Results

- Figure 1. Themes and trends in HEMS vs GEMS outcomes literature

Conclusion

- Overall, transport from trauma scenes by HEMS is associated with improved adjusted survival compared to GEMS.
- Several studies suggest that patients with unstable vital signs on scene and those with traumatic brain injuries benefit most from HEMS activation.
- Further high-quality study is needed to determine what patients benefit most from HEMS activation.
- Objective, physiologic guidelines are needed to guide transport decisions on trauma scenes.

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References

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