



THE GEORGE INSTITUTE
for International Health



Reducing the Global Burden of Disease

The Cost and Benefit of Helicopter Emergency Medical Services (HEMS)

Overview

- Background and context
- Why use a helicopter?
- Do HEMS improve patient outcomes?
- What's next?



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Background & Context



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Why use a helicopter?



Do HEMS improve patient outcomes?

Trauma

- ‘Scoop & Run’ vs. ‘Stay and Play’
- Entirety of evidence is observational
- Differences in the intervention, the context and the methodology
- Overutilization of helicopters

Non – Trauma

- Safety and feasibility



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What next?



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Previous work

- 16 articles
- 49-fold variation in cost
- 6 studies provided variant cost-effectiveness ratios for trauma and non-trauma populations
- Other studies showed no benefit and higher costs
- External validity:
 - Differences in the intervention
 - Differences in the context
 - Differences in the methodology



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Definition of current practice

- Number and type of missions
- Types of patients carried (stratified by the type of mission)
- Locations of missions
- Time components
- Crew composition
- Staff qualifications and experience
- Service responsibilities
- Costs



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Next step

- Define the time advantages of HEMS in the local environment
- Model the benefit of HEMS in relation to the cost for their current workload
- Evaluate the appropriate staffing composition of helicopters
- Evaluate dispatch criteria and processes



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Summary

- The cost benefit of HEMS is a classic example of some of the broader debates in public health
- There are many angles which should be considered
- Despite the difficulties there is context to evaluate the role of helicopters
- Issues include:
 - Multiple patient populations
 - Different service structures
 - Political ramifications
 - Community impact



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