

MIH-CP

# Journal Watch: Can MIH Care Reduce Hospice Transports?

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## Reviewed This Month

*Effect of a Mobile Integrated Hospice Healthcare Program on Emergency Medical Services Transport to the Emergency Department*

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Hospice care aims to support patients and families at the end of life. EMS was designed to reduce death and disability. While the goals of these two fields may not perfectly align, EMS is often called to provide emergency care for hospice patients, even though EMTs and paramedics are not always sufficiently trained in communicating with families at such times. Moreover, EMS care most often results in transport to an ED, although for these patients an ED may not be the most appropriate destination.

These conflicts present an opportunity for community paramedics to partner with hospice care providers to improve care for end-of-life patients. This month's study sought to evaluate the effect a mobile integrated hospice healthcare (MIHH) program had on the transport of hospice patients to EDs.

## Background

Setting up the MIHH program required a tremendous amount of coordination and collaboration. The study took place in Ventura County, Calif., which has an average EMS call volume of 70,000 annually. Just to get this project started required a collaboration between Ventura County EMS, three other local transporting agencies, and four local hospice providers.

Medical oversight was provided by a committee of hospice medical directors, county EMS medical directors, and members of the county department of public health. Further, because hospice care can require medications outside the standard paramedic scope of practice, this program was granted an expansion of that scope by the California Office of

Statewide Health Planning and Development. This expansion allowed paramedics trained as part of the MIHH program to carry a “hospice kit” that included haloperidol, lorazepam, morphine, ondansetron, acetaminophen, atropine drops, prochlorperazine, promethazine, bisacodyl, senna, and enemas.

There were 14 paramedics trained as part of the MIHH program. These paramedics had a minimum of 200 hours of training, four years of 9-1-1 experience, and were currently working in the field. MIHH program training required an additional 16 hours of classroom training and 14 hours of clinical experience. Training included palliative care, grief counseling, and crisis counseling, as well as accompanying hospice nurses for home visits and hospice team case reviews.

## Study Parameters

The primary study outcome was the proportion of hospice patients transported to EDs before and after implementation of the MIHH program. The authors also evaluated reasons for patient transport as well as hospice kit utilization. The baseline proportion of hospice patients transported to an ED was recorded six months prior to project initiation (January–June 2015). MIHH training took place during July 2015, the project began in August 2015, and data collection concluded in July 2018.

To be included in the program, patients were required to be enrolled in a hospice program. There were no exclusions based on age, reason for calling 9-1-1, location, or vital signs. MIHH program paramedics were dispatched to the scene when EMS providers on the responding unit determined the patient was enrolled in hospice. MIHH paramedics assumed care of the patient and scene management upon their arrival.

If the emergency was unrelated to the patient’s terminal illness, the patient was transported to the ED. For patients not requiring immediate transport, MIHH paramedics consulted with a hospice triage nurse to create and implement a care plan. Care plans included measures to address pain, anxiety, nausea, difficulty breathing, bleeding, and trauma. If the patient was actively dying, comfort measures were provided, as were calming measures and/or grief support for family. A decision was then made to either initiate transport to the ED or transition care to the on-scene hospice nurse.

## Results

There were 523 patients included in the study. The average number of monthly hospice 9-1-1 calls over the study period was 15. Prior to project implementation, 98 of 122 (80%) hospice patients were transported to the ED by EMS. In the first six months following the start of the project, this percentage dropped to 33%. It fell even further, to 20%, over the last six months of data collection. The odds ratio for hospice transportation to the ED before and after project implementation was 0.125 (95% CI: 0.077–0.201;  $p < 0.0001$ ). This represents an absolute reduction of risk of 46.6% (95% CI: 38.53%–54.72%). There was only one use of the hospice kit.

The most common reason for transport to the ED was a fall with injury (34%), followed by altered level of consciousness (9%) and difficulty breathing (8%). Twelve patients died prior to MIHH paramedic arrival, and two died while MIHH paramedics were on scene.

The authors note the study's limitations included the method of patient selection, which may not have captured all possible patients. Further, the authors did not compare the overall transport volume for nonhospice patients. It is possible (though not likely) that the reduction seen among hospice patients also occurred in nonhospice patients.

This was an interesting study that required an impressive amount of coordination, partnership, and teamwork. Results indicate this was a very successful program that provided the right patient care at the right time in the right location. Unfortunately, the authors note in their discussion that the long-term sustainability of the program and "hospice-oriented cultural shift" remain unknown. Hopefully, soon programs like Emergency Triage, Treat, and Transport (ET3) and others will help secure long-term sustainability for successful interventions like this.

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