



## CASE STUDY

### MEDIUM-SIZED RURAL EMS AGENCY, NORTHEAST

## Implementation of EMS Evacuation HoverJack® Device & HoverMatt® Air Transfer System Leads to Reduced Injuries and Associated Costs

### Situation

#### *High crew injury rates incurred with bariatric patient handling*

HoverTech surveyed a medium-sized EMS agency serving a suburban to rural service area in New Jersey. This agency responds to approximately 18,000 requests for service annually with a staff of 175 prehospital professionals.

The agency was experiencing frequent crew member injuries, typically lower back sprains and strains as a result of lifting and moving bariatric patients. A number of these injuries resulted from “lift assists.” These are situations when an individual has fallen and is requesting assistance to get up from the floor. Generally, the patient is at home, is not injured, and does not require transportation to an area emergency department.

These staff member injuries resulted in additional costs to the company, including lost time for employees, replacement staff and medical expenses.

### Implementation

#### *Addition of bariatric ambulance outfitted with a HoverMatt & HoverJack reduces staff lifting injuries*

After analyzing a year’s worth of injury data, the agency acknowledged that the overwhelming majority of injuries were the result of lifting and moving patients whose weight exceeded 330 lbs. Recognizing that the number of patients in this group was increasing each year, they converted a reserve ambulance into a dedicated bariatric ambulance. The ambulance was equipped with a bariatric stretcher (capacity of 1100 pounds) and an electric winch and ramp system to load the stretcher into the ambulance without manual lifting. Additionally, the ambulance carries a HoverMatt® Air Transfer System for lateral patient transfers and an EMS Evacuation HoverJack® Device for patient lifts and stairway transports.

The bariatric ambulance is dispatched anytime they are knowingly going to a patient exceeding 330 lbs., along with the closest non-bariatric ambulance. This assures

that they will have 4 personnel on-scene to safely move the patient. The computer-aided dispatch system “flags” the address of known bariatric patients, so there is no delay in dispatching this resource. If a non-bariatric ambulance arrives at a location and notes that the bariatric ambulance is needed, the on-scene crew then requests a response and the address is “flagged” for an automatic bariatric dispatch in the future.

In addition to lifting the patient from the floor, the EMS Evacuation HoverJack is also utilized to move bariatric patients down stairwells from upper floors to the ground floor in order to transfer them to the bariatric stretcher. The HoverMatt is employed each time a bariatric patient is transferred off of the bariatric stretcher and onto the hospital stretcher.



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### MEDIUM-SIZED RURAL EMS AGENCY NORTH EAST

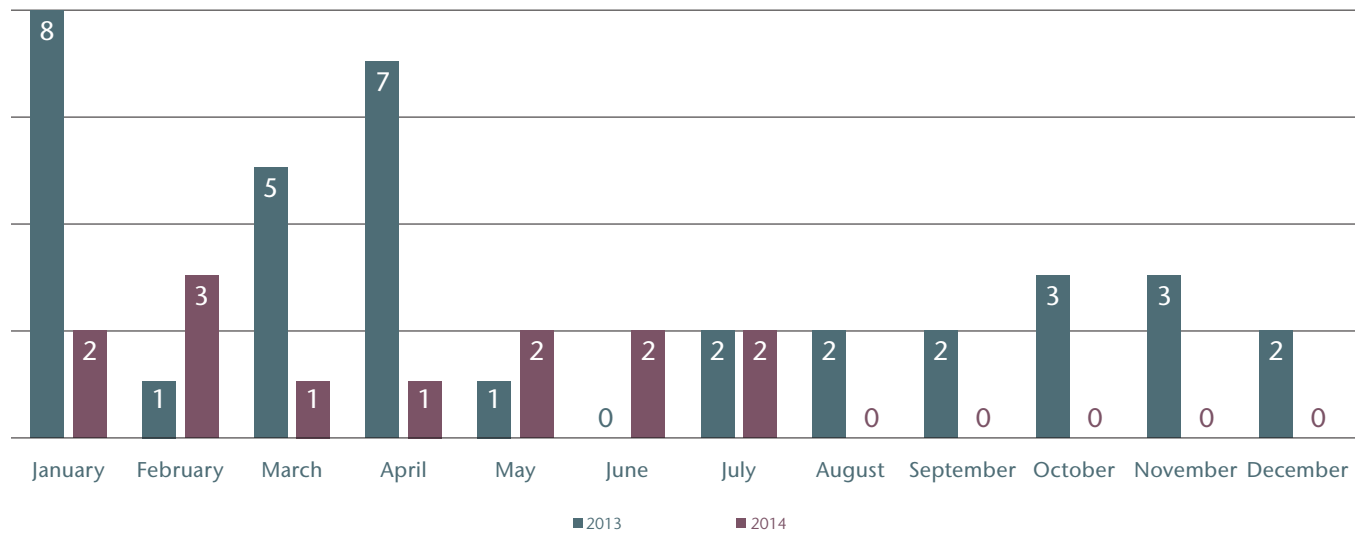
#### Conclusion

*The use of bariatric patient handling equipment, including the HoverMatt & EMS Evacuation HoverJack, reduces lifting injuries as well as direct and indirect costs*

In the first year of operation, staff member injuries were reduced by 46%. Lost time for employees, replacement, replacement staff and medical expenses were also reduced as a result.

To ensure the continued success, all current employees and new employees are required to complete online and “hands on” training sessions to orient them to the operation of the ambulance and its special equipment.

INCIDENT SUMMARY BY MONTH AS OF APRIL 2014



2013: 24 incidents through end of July

2014: 13 incidents through end of July