EMS Managers Assess the Cost and Benefits of Investing in Bariatric Equipment

By Dan Casciato

As obesity reaches epidemic proportions in the US, more EMS managers are purchasing bariatric equipment, including specialized stretchers, loading devices, ramps and stabilization systems for ambulances.

"Ambulance companies noticed the trend of patients getting larger and workers' compensation costs increasing," said Josh Weiss, public information officer for Mesa, Arizona-based Southwest Ambulance, which transports close to 2,000 obese patients (weighing 450 pounds or more) annually and in 2002 was one of the first ambulance companies to implement a bariatric transport program.

Southwest has four units dedicated exclusively to bariatric service in Tucson, Phoenix, New Mexico and Salt Lake City. Each of these ambulances uses a ramp-and-winch system and a Stryker stretcher that can hold a 1,800-pound patient.

Weiss said that the bariatric units bring dignity to obese patients who may be embarrassed when their size challenges even the strongest firefighters and medics. As importantly, he said, bariatric units with lift assist help protect EMS personnel from back injury.

"Our crews love that it's easier on their backs while better for the patient," he said. "We believe this has reduced back injury claims, but I can't prove it."

North Central EMS in Milan, Ohio, has two bariatric units, which were paid for by a grant from the state Bureau of Workers' Compensation. These ambulances were customized with a bariatric Stryker stretcher and loading system, which includes a ramp-and-winch system for loading and unloading patients.

Executive Director Don Ballah was not able to place a dollar figure on whether his bariatric units are worth the investment, but he said that he believes it was money well spent. "For the least amount of time that it takes to put something like this together, what it does for the patients who you transfer, it is well worth the time and resources," he said.

Rich Leyba, operations manager of Rural/Metro Ambulance in Aurora, Colorado, agreed. "We didn't base our bariatric transport program on how much money we can make from it," he said. "We wanted to provide a safer and more comfortable ride."

Rural/Metro equipped its ambulance with an Air Ride suspension system that lowers the ambulance to within 4 to 6 inches from the ground. It contains ramps that are mounted to the back of the ambulance. Workers then winch the patient into the ambulance onto a bariatric stretcher.

The standard Rural/Metro stretcher can accommodate 650 pounds raised, and 1,000 pounds when lowered. Its bariatric stretchers, which are eight inches wider than the regular stretchers, can hold up to 850 pounds raised and 1,600 pounds lowered. They also have push bars that can mount on the back of the stretchers so their workers can guide the stretcher instead of lifting it.

"In the past, many bariatric patients felt self-conscious about how many people were helping them," said Leyba. "With this system, we can leave them lowered to the ground and winch them into the ambulance so it's more of a dignified ride."

Keeping Costs in Check

Bariatric ambulances can be purchased for about $250,000, but there are options to providing bariatric transport at a lower cost. For example, you can apply for a grant to offset the cost, or you can share the cost — and the usage — among several transporting agencies in or near your service area.

Another option is to modify an existing unit. Southwest Ambulance's Weiss said that modifications can be accomplished for as little as $3,500, plus the cost of a bariatric gurney.

Southwest converted a 1998 Type III ambulance with dual rear wheels and a wide patient module. Short slots were cut in the door threshold to provide an anchor point for two polycarbonate ramps that hold 750 pounds each and cost about $100. Southwest removed the right rear cabinet divider to add a storage area for the ramps.

Southwest uses an electric winch that pulls 4,000 pounds, has an automatic brake and is remotely operated. A winch like this costs about $400. The winch is bolted to the floor and held in place by a bracket. Steel tubing was added under the floor to spread the winch load across multiple cross-members.

Bariatric gurneys cost about twice as much as regular gurneys. Southwest originally purchased a Ferno Model PROFlexx 35-P, which holds 650 pounds raised and 1,000 pounds lowered. Other options include the Ferno PROFlexx 93-P and the Stryker MX-PRO R3 and R4.

Weiss recommended that EMS managers consider upgrading gurneys in all ambulances that can support more weight, which gives services greater flexibility for patients in the 400-pound range who may not need to be loaded with the winch system or who cannot wait for the bariatric unit because of a life-threatening illness or injury.

Southwest does not charge extra for bariatric transport; however, if permitted by law, they may charge the patient a standby fee if extra crew or personnel are needed, Weiss said. "While in many cases a two-person crew can handle an obese patient, we prefer having at least a manager or extra crew available to assist in any transfers onto the gurney, or as the patient is pulled up or down the unit's ramp," he explained.