

ZOOM Revolutionizes Patient Transport

Situation

New critical care diagnostic examinations, tests and therapies developed over the last two decades have dramatically improved patient care. The growth in interventional radiology alone has provided an entire new range of treatment options that are less invasive than surgical techniques.

The advent of new technologies, however, has also changed the method in which critical care is provided. These new procedures must be performed in specialized radiology suites, which inevitably means transporting patients between multiple departments to undergo diagnostic tests and therapeutic interventions.¹ As a result, clinicians are moving patients on a routine basis.

Compensation and Working Conditions reports that 59% of all nursing injuries are “due to overexertion.”² And most experts agree that these injuries are usually a cumulative result over several years of routine daily activity. This phenomenon is known as **Cumulative Trauma Disorder**, and can increase a medical center’s compensation costs due to lost-time injuries and increased insurance costs.

According to one manager who oversees workman’s compensation claims at a 45+ member health system, “...reducing occupational injuries within our system is one of our top management objectives.”

This health system and others seeking to save costs and reduce injuries needed a less strenuous means of transporting patients.

Rationale

Stryker Medical leads the market in patient transport. Stryker’s pioneering efforts in stretcher technology and ergonomic design have enabled clinicians to move patients with less effort.

Building on this experience, Stryker Medical set out to develop a bed frame that revolutionizes the transport of critically ill patients.

Methodology

Basing designs on technology borrowed from mobile X-ray units and motorized wheel chairs, Stryker developed Zoom—a self-propelled patient platform.

Using a head-end control bar that activates a centrally-located drive wheel, Zoom steers easily and with little effort.

Results

In a comparative study of Stryker critical care frames and a leading competitor, Zoom reduced maximum start-up force by an astounding 93%.³

The study was conducted on both carpeted and tiled surfaces with 200, 300 and 400 pound weights to simulate different patient weights and sizes. Pushing efforts were measured by means of a force-gauge.

Conclusion

The need to transport critically ill patients is rising. **Cumulative Trauma Disorder** is widely recognized as a key contributor to the alarming rate of occupational injuries. Zoom makes patient transport virtually effortless, which in turn helps reduce the likelihood that clinicians will incur back injuries.

¹ *American Journal of Critical Care*, July 1998.

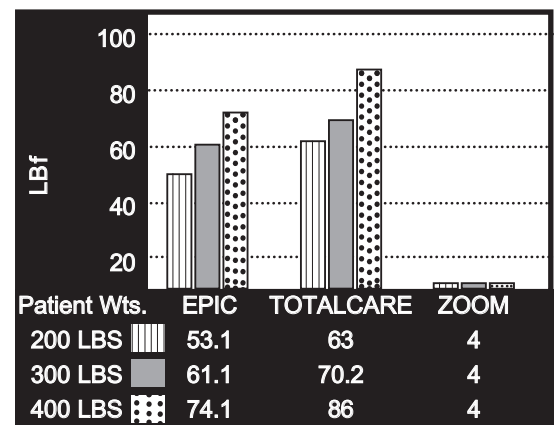
² *Compensation and Working Conditions*, “Dangerous Jobs,” Summer 1997.

³ Averages of test results.

⁴ Testing conducted by Stryker on 1999 models.



TEST 1: AVERAGE START-UP PUSHING FORCE NEEDED ON CARPET ⁴



TEST 2: AVERAGE START-UP PUSHING FORCE NEEDED ON TILE ⁴

