

# The true cost of pushing beds in hospitals

Electrodrive recently conducted a survey to collect bed-transport information from hospitals to better understand the direct and indirect benefits of incorporating powered bed movers into the workflow.



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GZ10SL ('slimline') bed mover

GZS bed mover

# Case study

## The risk of physical injury

We discovered that it could take up to three staff members to manually transport hospital beds (weighing up to 500 kg) at one time. Per year the total time added up to more than 90,000 hours – costing the hospital unnecessary dollars and much-needed resources.

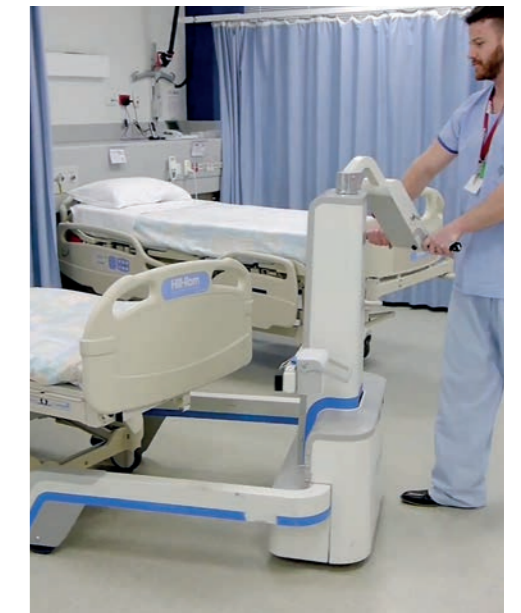
What was more concerning, is that staff were at increased risk of injury and fatigue from manually pushing heavy beds. Moving in-and-out of corridors, around corners and into lifts posed occupational challenges and safety risks. This also had a knock-on effect with decreased productivity and morale.

## Empowering hospital staff

Based on data collected, we established that by introducing Gzunda powered bed movers, it would reduce the need for two staff members, and enable a single user to perform the same task. This would be a saving of approximately \$60,000 per year. This is substantial in terms of monetary cost, but the human cost is what really matters.

## Increasing productivity and safety with a powered bed mover

Introducing Gzunda hospital bed movers increased productivity, and enabled a single user to easily move up to 500 kg without the need for extra assistance. This also reduced the risk of injury and other costs associated with multiple staff performing the same job. Occupational health and safety had improved with less physical demand required, and an increase in efficiency.



# Cost benefit analysis

## Scope

- To evaluate both the direct (\$) and indirect (human) cost associated with manual bed transports in surgical hospitals.
- To evaluate both the direct and indirect benefit in replacing manual bed-transports with Gzunda-assisted bed transports in hospitals.
- To estimate the ROI on a Gzunda, taking into account hospital size and type.

## Hospital classification

For the purpose of this analysis, hospitals are classified as follows:

Class	Number of beds	Number of bed movers
Class I	> 450 bed	30 Gzunda bed movers
Class II	240 beds	5 Gzunda bed movers
Class III	120 beds	2 Gzunda bed movers

## Key features and benefits of a Gzunda bed mover

The **Gzunda bed mover** aims to reduce the risk of injury while moving heavy beds.

- Eliminates injury and minimizes fatigue.
- Single-person operation.
- Push-button hitching.
- Safe and easy to use.
- Quiet, smooth, clean operation.
- Simple to maintain.
- Productivity benefits.

## The human cost of manual bed moving

- Increased manual handling injuries.
- Reduced staff-retention and morale.
- Increased fatigue.
- Lower productivity.

## Hospital survey

A survey to collect bed-transport related information from St Vincent's Hospital and Epworth Private Hospital was carried out to better understand the direct and indirect benefits of the incorporation of bed movers into hospitals.

## Hospital survey results

Survey results	St Vincent's Hospital (Melbourne, VIC)	Epworth Private Hospital (Richmond, VIC)
Class	I	I
Number of beds	463	530
Number of motorised bed movers	22	20
Number of bed transports per annum	56,000	72,800
Proportion of motorised bed transports	100%	
Number of staff per motorised transport	1	1
Proportion of manual bed transports	0%	
Number of staff required per manual transport (empty bed)	2	2
Number of staff required per manual transport (occupied bed)	2	3
Proportion of transports where bed is empty	N/A	30%
Average distance travelled per transport (metres)	1000	700
Average time per transport (minutes)	20	20
Notes	Imaging only: 35% of total transports, remaining transports at 10 minutes.	Larger number of manual-transport staff needed, due to carpets.

## Time saving analysis

Hours per annum (manual bed transports)	90,667	65,520
Hours per annum (motorised bed transports)	45,333	24,267
Hours saved per annum	45,333	41,253
At \$30 per hour (conservatively)	\$1,360,000	\$1,237,600
Annual saving per Gzunda	\$61,818	\$61,880



## Understanding the data

Based on the data provided by St Vincent's Hospital, we can determine that with 56,000 bed moves per annum, it takes an average 20 minutes per bed move.

## Review

Based on data collected at two sample hospitals, the average saving in reducing two bed moving staff to one person will save approximately \$60,000 per annum with the use of a Gzunda bed mover.



## Other move-safe solutions available from Fallshaw Group



Linen transport.



Powered meal delivery systems.



Waste management solutions.



Castors for repairs and maintenance (including fitting service).



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