

Economic Case for Using PATRAN Slide Sheets

The following is an example of an economic model for lost-time injuries due to patient handling in a 100-bed hospital. Note: This model is very conservative and simplified. Training costs and savings beyond the cost of workers' compensation insurance are not considered. Actual savings are usually higher and return on investment accelerated when all costs are considered.

INJURY SUMMARY

A 100-bed facility has a workers' compensation insurance cost of \$100,000 per year. It formed a task force to study the problem and recommend a solution. The task force reviewed its injury data and found it similar to many hospitals.

- The hospital's insurance provider projected \$40,000 to \$45,000 could be saved in insurance premiums by reducing injuries.
- Most injuries happen during planned patient repositioning.
- Patient transfers are the second-leading cause of injuries.
- The average nurse's age is getting older and many will soon retire. Age is a factor in injuries.
- Patients are getting larger and heavier.
- Average cost per claim has been about \$5,000.

The task force found injuries made it difficult to keep nursing staffing levels adequate. It decided that a minimum lift program should be implemented.

EQUIPMENT CHOICES

The task force looked at several types of equipment to help solve the problem and the associated costs.

- **PATRAN[®] single-patient-use device** at cost of less than \$4 per patient
- **A multiple-patient-use device** costing \$100 per unit
- **Fixed ceiling lift/sling devices** at more than \$12,000 per unit

(Note: the multiple-patient-use devices require cleaning to prevent cross infection, but single-patient use PATRANs do not.)



PATRAN® Single-Patient-Use Device

The task force projected caregivers would move or reposition 3,000 patients per year. PATRANs can be reused with the same patient as long as that patient stays in the facility. However, some will be thrown away prematurely due to excessive soiling by body fluids.

If the facility purchased single-patient-use devices, no cleaning would be required. While PATRANs are impervious to most disinfectants, disposal should cost less than cleaning.

One PATRAN per each of 3,000 patients x \$4 each	= \$12,000
100 PATRANs lost to early disposal x \$4 each	= \$400
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Total first year cost if PATRAN single-patient-use devices	= \$12,400

Result: The task force realized that the \$12,400 cost of PATRANs subtracted from the \$40,000 workers' compensation reduction goal would result in a \$27,600 first-year savings. PATRANs would pay for themselves right away. The facility would only buy what it needs for a week to a month so there are no large upfront costs.

Multiple-Patient-Use Devices

The 100-bed hospital included 70 private or semi-private patient rooms. Therefore, the facility would have to purchase 210 of the portable, multiple-patient-use devices to have enough on hand for patient rooms while others were sent to be laundered. The task force recognized multiple-patient-use devices would need to be cleaned after each patient to prevent cross infection.

Initial purchase of 210 devices costing \$100 each	= \$21,000
Cleaning costs at \$2 per cleaning x 3,000	= \$6,000
Replacing estimated 100 lost or stained devices x \$100	= \$10,000
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Total first year cost of multiple-patient-use device	= \$37,000

Result: At \$40,000 savings, it will take nearly a year to pay for the investment. The task force decided against making its initial recommendation for multiple-patient-use devices due to concerns about storage and convenience. Those devices could be considered later as specialty items, the group decided.





Ceiling Lifts

The installation costs for ceiling lifts come in at upward of \$12,000 per patient room. Multiple slings would need to be purchased for each lift, some slings could be in the room while other were being laundered.

Initial purchase of 70 lifts x \$12,000 each	= \$840,000
Three slings per lift = 210 slings x \$100 each	= \$21,000
Cleaning costs of \$2 x 3,000 patients	= \$6,000
Replacing 100 lost or stained slings x \$100 each	= \$10,000
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Total first year cost of ceiling lift device	= \$877,000

Result: It will take more than 20 years to pay for the investment of ceiling lifts and slings. However, the task force knew that some lifts would be needed. If considered, savings from injured caregiver treatment, lost and restricted work days, and other personnel related costs, will accelerate the payback time. The group also found that some caregiver injuries cost hundreds of thousands of dollars.

CONCLUSIONS

The task force decided to recommend PATRANs due to their low cost and versatility.

PATRANs offered the fastest return on investment and even cost less than cleaning and replacing the multiple-patient-use devices. Additionally, PATRANs are small and can be stored in the room near the patient. Being close at hand results in higher compliance. The task force realized the same PATRAN used to transfer a patient onto a cart could be sent with that patient to X-ray or other departments to be used for transfers.

Still, the task force thought some of the devices offered different desirable advantages. The group knew the low cost of PATRANs would give it flexibility to change its recommendation or add devices in the future. If the facility started with PATRANs, it could save money right away. If the task force wanted to buy additional devices, it could do so out of those savings. Therefore, the task force recommended PATRANs.