



A review of
reusable vs
disposable
privacy curtains
in healthcare.

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“We see merit in both disposable and textile options depending on the application.”

About Us

Materialised is a commercial textile supplier dedicated to delivering beautiful and functional performance textiles across Australia, New Zealand and the Asia Pacific.

Founded by Gary Price, Materialised has specialised in supplying the healthcare and hospitality markets for over 35 years.

Introduction

In recent years there has been much hype surrounding the benefits of disposable privacy curtains in hospitals. Emphasis is usually placed on the infection control advantage of a disposable curtain versus the laundering and ongoing costs associated with the traditional woven textile option.

We see merit in both disposable and reusable options, depending on the application. Generally speaking, in high infection areas staff need to be able to gather up and incinerate all items after every patient, making a disposable curtain most appropriate for this situation.

On the other hand, there is growing evidence to suggest patients are less stressed and recover quicker when wards and treatment areas are furnished in a less “clinical” way ^(1,2). In line with this, woven reusable curtains improve acoustic amenity and add a more homely feel, resulting in a dignified and relaxing environment for both patients and staff.

When conducting a cost comparison it is important to consider the following factors:

- The life cycle of a good quality woven textile is approximately ten years, whereas a disposable polypropylene curtain has a life cycle of between 12 - 24 weeks.
- Regardless of the curtain type and its antimicrobial properties, the only truly effective wash or replacement cycle is to replace after every patient.
- The physical process of removing and replacing both curtain types is estimated at \$1.75 - \$2.00 per curtain.
- While reusable privacy curtains incur washing costs, disposable privacy curtains also incur disposal costs.
- The average cost of a four metre reusable privacy curtain is \$220, a disposable privacy curtain suiting the same space is seven-and-a-half metres and costs \$35.50.

Independent Study

Graham Jowsey & Associated Pty Ltd was engaged to investigate figures relating to both reusable and disposable hospital privacy curtains in order to dispel some common misconceptions and establish the relative effectiveness of both types of privacy curtains.

Methodology

Data was gathered from a major private linen service provider and two major hospital groups, one based in Sydney and the other in Melbourne. Both hospital groups use reusable and disposable privacy curtains and are currently undecided as to which one is most effective.

The Facts

What is the life expectancy of a new good quality reusable curtain?

It was indicated by both hospital groups that a good quality reusable curtain can last up to ten years, and potentially longer if maintained in the correct fashion (i.e. washed to Australian Standard 4146). There are a small percentage of stains, like all hospital linen, that cannot be washed out.

What is the life expectancy of a new good quality disposable curtain?

Both hospital groups advised that a disposable curtain can hang for up to 12 months providing there is no obvious staining or wear-and-tear. That being said, it was also advised that this was dependent upon relative Infection Control (IC) protocols. In some instances, it is protocol to take down a disposable privacy curtain after three months.

How often should you wash privacy curtains?

Again, this came down to a matter of IC protocol. One hospital advised that the cleanliness of privacy curtains is inspected by ward staff daily, with soiled curtains being replaced immediately. Furthermore, privacy curtains located in isolation rooms are replaced upon discharge of each patient. The second hospital group advised that their protocol is to wash privacy curtains approximately every three months unless there is obvious staining, in which case they would be replaced sooner.





What is the estimated cost to wash reusable privacy curtains?

It must be noted that there is a distinction between the cost of actually washing the privacy curtains and what each hospital pays for this service. One hospital with an on premise laundry (OPL) service approximated the cost to wash a reusable curtain at \$2.50 - \$3. Another hospital, also with an OPL service, paid \$4.50. To dry clean a reusable curtain costs approximately \$9.50 per curtain and washing according to Australian Standard 4146 costs \$7.92 per curtain.

What is the process to dispose of 'one use' curtains, and what is the estimated cost of disposal per curtain?

Disposable curtains are considered general waste unless there is visible blood staining, in which case they become clinical waste.

One hospital said they paid \$0.33 - \$0.43 per/kg for general waste and \$0.72 for clinical waste. They felt that they had a good contract and this pricing should be considered competitive.

The other hospital group could not disclose their costs, but claimed they paid five times more per kilo for disposal of clinical waste as compared to general waste.

In 2002, the Auditor General's report on NSW Hospitals Waste Disposal found that Concord Hospital's costs were \$0.109 per/kg for general waste and \$0.93 per/kg for clinical waste.

For the purposes of this study, we will average these costs out and take general waste to cost \$0.30 per/kg and clinical waste to cost \$0.80 per/kg for disposal.

How long, time wise, does it take to remove a soiled curtain and then replace it?

Both hospital groups agreed it took 5-10 minutes to remove and replace both curtain types with an approximate labour cost of \$1.75 - \$2.

Conclusion

Despite reading various reports and discussing pricing and time efficiency with both hospitals and linen service providers, the huge variables make it almost impossible to produce exact figures that apply across the board.

The relative efficiency of each curtain type depends largely on the IC policies of individual hospitals, including policies related to hang time and acceptable levels of soiling. In all cases there is also the unknown and unpredictable case of a curtain being stained before it is due for replacement, making washing more frequent.

The general feeling is that hospitals are slowly moving towards complete adoption of disposable privacy curtains. All groups felt that disposable privacy curtains are more effective for infection control, mostly based on information provided by their disposable curtain suppliers.

On a more subjective level, it's fair to say that disposable privacy curtains are to ward interiors what styrafoam cups are to restaurants, easy to dispose of but in some cases more expensive and always less attractive. Research suggests that far from only being an aesthetic concern, hospitals that are designed and furnished in a less clinical way have better patient health outcomes and recovery times^(1,2). Therefore reusable curtains play an important part in the healing process, something that cannot be claimed of disposable privacy curtains.

Finally, when considering pricing it becomes obvious that the determining factor in choosing the most effective product directly relates to the frequency of washing reusable curtains and/or the rate at which disposable curtains are replaced. Our attached matrix shows that as soon as a disposable privacy curtain is changed four times a year, it loses its financial benefit (when compared to a reusable curtain that is washed four times per year for a five year period).

(1) Commission for Architecture and the Built Environment, (2009). Future health: Sustainable placed for health and well-being, London: CABE.

(2) Veitch, J.A., (2008). Investigating and influencing how buildings affect health; Interdisciplinary endeavours.



Reusable vs disposable privacy curtains: A lifetime cost comparison

	Max Life	Purchase Price	Wash Cost	Hanging Cost	Disposal Cost	Total Annual Cost
REUSABLE	10 years x 1 wash per year	\$220	\$79.20	\$20	\$0	\$31.92
	10 years x 4 wash per year	\$220	\$316.80	\$80	\$0	\$61.68
	5 years x 1 wash per year	\$220	\$38.60	\$10	\$0	\$53.92
	5 years x 4 wash per year	\$220	\$158.40	\$40	\$0	\$83.68
DISPOSABLE	1 x change per year	\$35.50	\$0	\$2	\$1.10	\$38.60
	4 x changes per year	\$142	\$0	\$8	\$4.40	\$154.40
	6 x changes per year	\$213	\$0	\$12	\$6.60	\$231.60

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Cost Calculator

Add your own figures into the fields below to calculate the costs associated with both reusable and disposable privacy curtains per annum.

Reusable:

Life Time (years)	Purchase (\$/item)	Wash Cost (\$/item)	Washes/year (times/year)	Remove & re-hang cost (\$/item)	Disposable cost (\$/item)	Cost per year (\$/item)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Disposable:

Life Time (months)	Purchase price	Wash Cost (\$/item)	Washes/year (times/year)	Remove & re-hang cost (\$/item)	Disposable cost (\$/item)	Cost per year (\$/item)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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