EE 560

Potential Budget Impact of Using a Cyanoacrylate Polymer Barrier Film Versus Traditional Methods for the Prevention of Incontinence-Associated Dermatitis in a Hospital Setting in New Zealand

Diana M. Campos [1], Julia Stafford [2], Brenda Loft [3], Valentyn Siabro [4], Maria Palka-Santini [5]
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Background and Aim

- Incontinence-associated dermatitis (IAD) describes the skin damage associated with exposure to urine or stool. It causes considerable discomfort and can be difficult, time consuming and expensive to treat.
- Incontinence has long been considered a risk factor for pressure ulcers/injuries — moisture on the skin increases friction and friction is a component of shear force, which can contribute to pressure injury — especially in the sacrococcygeal area. More recently, IAD has been recognized as a risk factor with the likelihood of developing a pressure ulcer/injury increasing with the severity of IAD.
- The objective of this study was to estimate the potential budget impact of utilizing a cyanoacrylate polymer barrier film (CPBF) for the prevention of IAD compared to traditional methods for patients in an intensive care hospital setting in New Zealand.

Methods

- A cost-minimization model was used to calculate the potential budget impact of using CPBF for the prevention of IAD in hospitalized patients requiring intensive care compared to traditional methods.
- The model considered all patients with incontinence are at risk of developing IAD, and was based on parameters taken from published literature, including rates of incontinence (40%).
- The daily average number of incontinent episodes per patient was 6. The number of product applications per week was 42 for traditional methods versus 2 applications per week for CPBF prevention and mild IAD, and 3 times per week for moderate to severe IAD. Only patients receiving in-hospital care were assessed.
- The cleansing and application time for the traditional method was 5 minutes and 2 minutes, respectively, versus 2 mins and 45 seconds respectively for CPBF.
- Local material costs were applied.
- All calculations were performed in New Zealand dollars.

Results and Conclusions

- The total yearly material costs for a 30-bed intensive care unit were 11% ($1,776) less for CPBF ($14,743) compared to the use of traditional methods ($16,519).
- Total nursing time was 70.9% (2,899 hours) less for CPBF (1,188 hours) compared to traditional methods (4,088 hours) (Figure 1).
- The total savings associated with using CPBF was 63.9% ($111,162) (Figure 2).
- The use of a CPBF for the prevention of IAD for patients in intensive care is likely to reduce the burden of care for clinicians and may yield significant cost and resource savings
- The uncertainty of the model estimations were addressed via sensitivity analysis (Figure 3).

Figure. 1 – Nursing Time Comparison of CPBF vs Traditional Methods

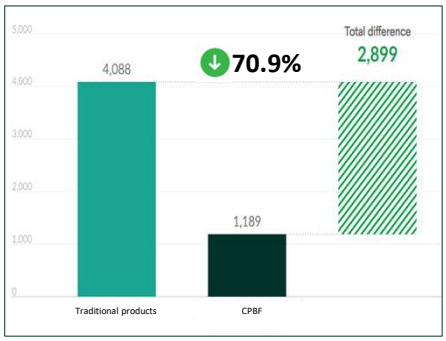


Figure. 2 – Cost Comparison of CPBF vs Traditional Methods

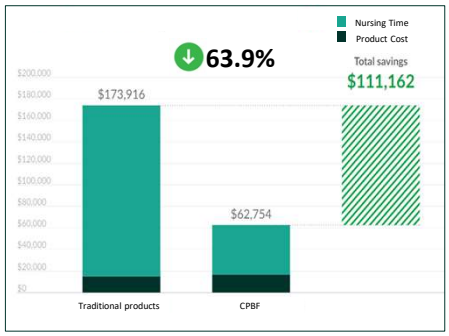
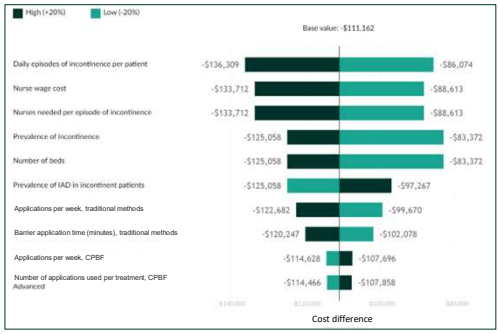


Figure. 3 – One Way Sensitivity Analysis



References

1. García CB, Binks R, De Luca E, et al. Expert Recommendations for Managing Acute Fecal Incontinence with Diarrhea in the Intensive Care Unit. *J of the Intensive Care Soc.* 2013;14(4_suppl):1-9.

Presented at ISPOR Europe 2024, Barcelona, Spain. Nov 17-20, 2024.
NOTE: Specific indications, contraindications, warnings, precautions and safety information exist for these products and therapies.
Please consult a clinician and product instructions for use prior to application. Rx only.

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- Local material costs were applied.
- All calculations were performed in New Zealand dollars.

Results and Conclusions

- The total yearly material costs for a 30-bed intensive care unit were 11% ($1,776) less for CPBF ($14,743) compared to the use of traditional methods ($16,519).
- Total nursing time was 71% (2,899 hours) less for CPBF (1,188 hours) compared to traditional methods (4,088 hours) **(Figure 1).**
- The total savings associated with using CPBF was 63.9% ($111,162) **(Figure 2).**
- The use of CPBF for the prevention of IAD for patients in intensive care is likely to reduce the burden of care for clinicians and may yield significant cost and resource savings
- The uncertainty of the model estimations were addressed via sensitivity analysis **(Figure 3).**

Figure. 1

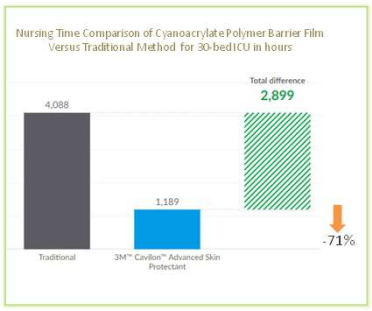

Figure. 2

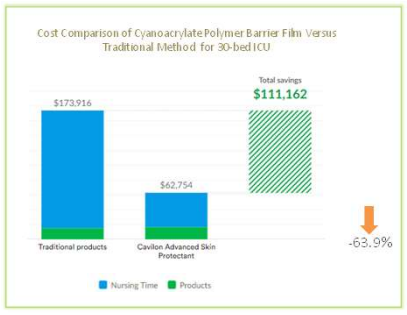

Figure. 3

References

1. García CB, Binks R, De Luca E, et al. Expert Recommendations for Managing Acute Faecal Incontinence with Diarrhoea in the Intensive Care Unit. Journal of the Intensive Care Society. 2013;14(4_suppl):1-9.

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