A Retrospective Cohort Analysis of Patients Treated with a Three-layer Acrylic Adhesive Foam Dressing as Part of an Integrated Care Bundle for the Management of Wound Exudate in Chronic Wounds

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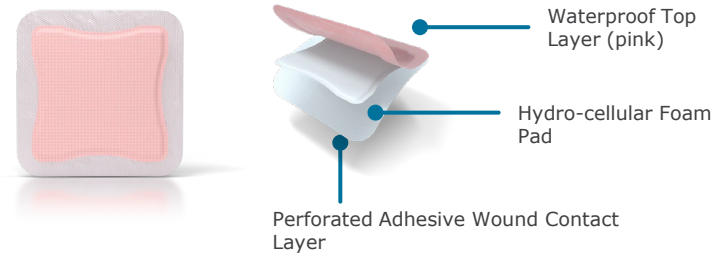
Problem

- Patients with chronic wounds often receive poor assessment which can lead to inaccurate diagnosis and delays in appropriate treatment due to a lack of access to evidence-based care and variations in the way care is delivered[1].
- The adoption of integrated care bundles (ICBs) in clinical practice was first introduced in the early 2000's[2], since then there has been a significant rise in the use of ICBs across a variety of care settings.
- The ICB approach to care delivery has been developing in the management of chronic wounds[3].

Study and Methods

- A retrospective analysis to evaluate the impact of ICB implementation over a 2-year period at community care access centers (CCAC) in Ontario, Canada, specifically focusing on ICBs with an adhesive foam dressing* (Figure 1)
- Electronic medical records were analysed based on whether or not patients received an ICB with the adhesive foam dressing*
- Baseline characteristics, comorbidities (Charlson index[4]), and wound severity (BWAT;[5] high scores suggest poor wound status) were recorded

Figure 1. A perforated acrylic based adhesive foam dressing combines an absorbent hydro-cellular pad between a perforated adhesive contact layer and a waterproof top film



Results

- Overall, 3,678 patients received an ICB and 2,242 did not
- In the ICB group mean age (58 vs 56 years) and mean comorbidity index (2.7 vs 2.40) were slightly higher than in the non-ICB group
- Mean number of days between dressing changes was longer (>1 day) using an ICB than for those who did not receive an ICB (3.2 vs 1.87 days; Figure 2)
- Mean time to healing/closure was shorter using an ICB than without an ICB (12.72 vs 25.49 weeks
- Mean total labour cost was CAD $1,722 per patient for wounds managed using and ICB compared with CAD $6,488 for those whose wounds were not managed with an ICB – a difference of CAD $4,766

Conclusion

Integrated care bundles can help to relieve the burden of wound care by reducing management costs whilst improving clinical outcomes as part of a program of broader initiatives. Further evaluation is needed with other dressing types as well as the wider adoption of this strategy in the management of wounds.

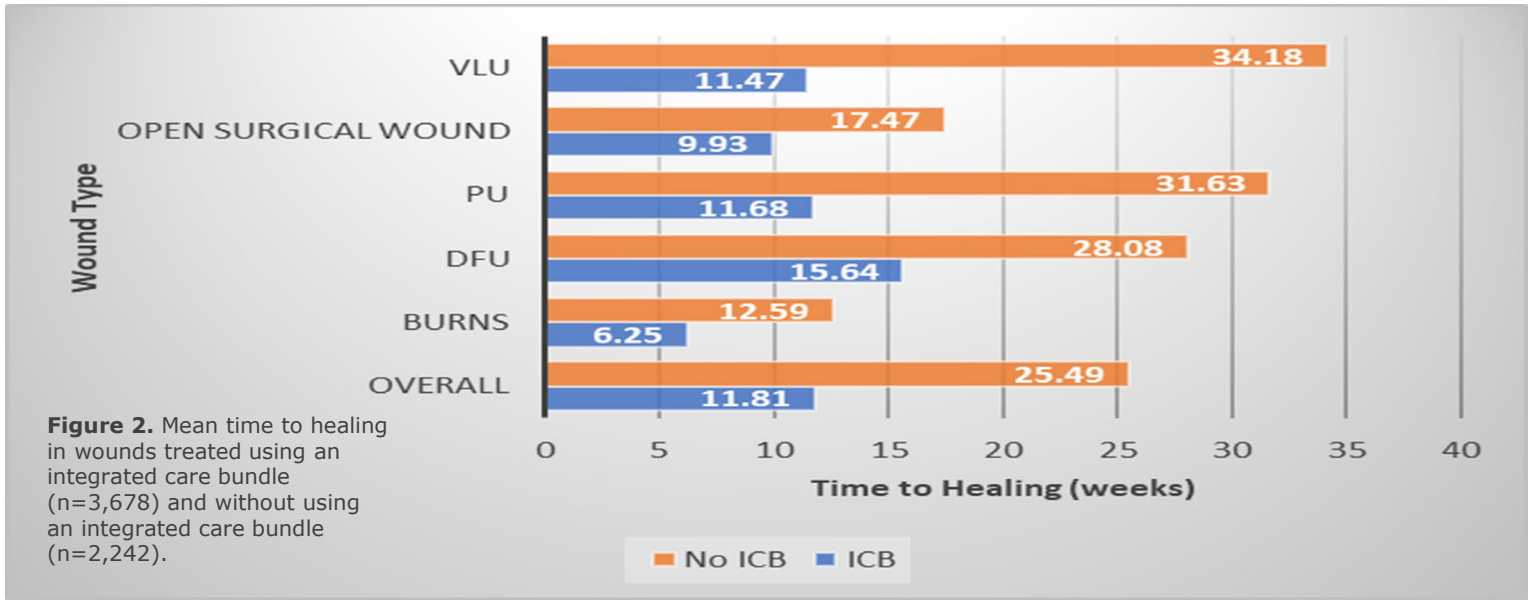


Figure 2. Mean time to healing in wounds treated using an integrated care bundle (n=3,678) and without using an integrated care bundle (n=2,242).

References

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3.Hurd T, Murdoch J. *JCN*. 2023;37(2):38-44.
4.Charlson ME, et al. *J Chronic Dis*. 1987;40(5):373-83.
5. Bates-Jensen BM, et al. *Wound Repair Regen*. 2019;27(4):386–395.

Abbreviations

BWAT = Bates-Jensen Wound Assessment Tool

*ALLEVYN◊ ADHESIVE Foam Dressing (Smith+Nephew, UK)