

The Use of a Transparent Gel Dressing in the Treatment of Deep-Tissue Pressure Injuries in an Acute Care Setting

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INTRODUCTION

- The repetitive removal of adhesive foam dressings can increase the risk of medical adhesive-related skin injury (MARSIs).¹
- Transparent dressings can help protect the wound from external contaminants and prevent further skin damage, while the clear design allows caregivers to quickly assess the skin without removing the dressing.
- One available transparent dressing is a transparent gel dressing (TGD) that is intended to be used as part of PI protocols. The dressing is designed with a transparent island to redistribute pressure and manage the microclimate of the wound.*

OBJECTIVE

- To conduct a case series over six weeks to evaluate the use of the TGD in four DTPI patients with various comorbidities in a critical care unit setting.

METHODS

- The TGD was applied to the DTPI locations (buttock, shoulder, and sacrum), and changed approximately every three days.
- Patient exclusions included the presence of incontinence-associated dermatitis, fungal wound infections, and burns.
- Caregivers performed wound assessments twice per week to evaluate and measure the wound area. In one patient, a barrier film was applied to protect the wound from contamination with loose stool.
- The patients were assessed for stage regression with the use of the TGD dressing, and wound improvement, defined as improvement in wound size, color, and bogginess.

*Optiview® Transparent Dressing with Hydrocore Technology

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Case Series Results

Representative wound images from two of the four total patients have been identified by the author and are presented below.

Case 1. 67-year-old patient with a history of coronary heart disease and post-op coronary artery bypass graft and a Monk Skin Tone of 2 presented with a DTPI at the right buttock. The TGD was applied with an average wear time of two days and wound assessments were performed twice per week. By Day 13, the wound displayed improvement in size and color. By Day 21, the wound was fully healed with an overall wound size reduction of 2 x 3 cm.



Image 1. DTPI at Day 1, wound measured at 2 x 3 cm.



Image 2. Day 13 post-application of TGD every two days.



Image 3. Day 21, fully healed wound.

Case 2. 84-year-old patient with a history of congestive heart failure, COPD, a recent pacemaker, and a Monk Skin Tone of 2 presented with a DTPI at the right buttock. The TGD was applied with an average wear time of three days and wound assessments were performed twice per week. By Day 3, the wound displayed improvement in size and color. By Day 7, the wound showed further improvement in reduction of the overall wound area. The patient was discharged on Day 7.



Image 4. DTPI at Day 1 measured at 4 x 3 cm.



Image 5. DTPI at Day 3 post-application of TGD.



Image 6. DTPI at Day 7, wound measured at 1 x 3 cm with improvement in size and color.

RESULTS

- Three DTPI wounds fully healed with the use of the TGD and all patients displayed a reduction in wound size over the course of treatment with the TGD dressing.
- The average reduction in wound area over the course of treatment with the TGD was 8.246 cm².² The average percent reduction in wound area over the course of treatment with the TGD was a 74.9% reduction.²
- The average time to wound closure of the three wounds that completely healed after application of the TGD was 18.3 days.²
- Improvement in wound color and bogginess was also noted. One patient was able to verbalize a reduction in pain with the use of the TGD dressing.

CONCLUSIONS

- DTPI wounds treated with the TGD displayed a 74.9% reduction in wound area. The TGD dressing improved patient outcomes by mitigating DTPI stage progression and reducing dressing changes.
- Additionally, the transparent design of the dressing reduced nursing time by allowing caregivers to easily visualize the wound.
- Further, the longer wear time provided by the TGD dressing as part of an alternative PI treatment protocol may provide potential cost reductions.

REFERENCES

1. Rabelo AL, Bordonal J, Almeida TL, Oliveira PP, Moraes JT. Medical adhesive-related skin injury in adult intensive care unit: scoping review. Rev Bras Enferm. 2022 Sep 9;75(6):e20210926. doi: 10.1590/0034-7167-2021-0926.
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