

Introduction

- Chronic wounds lead to substantial morbidity due to delayed healing, recurrent infection, and high resource utilization.
- Advanced wound dressings (AWD) have been developed to enhance granulation, moisture balance, and epithelialization.
- Current AWDs include hydrocolloids, silver dressings, collagen matrices, growth-factor dressings, negative pressure therapy, and bioengineered skin substitutes.
- The purpose of this review was to evaluate clinical outcomes associated with AWD in the management of chronic wounds.

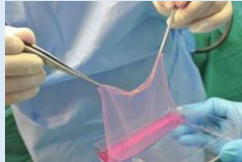


Figure 1: Glo with Factor Wound Dressing

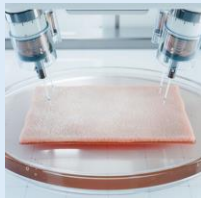


Figure 2: Bioengineered Skin



Figure 3: Hydrocolloid Technology

Methods

A scoping review was conducted using PubMed with the keywords "hydrocolloids" and "chronic wounds."



Inclusion criteria: (1) treatment of chronic wounds with an advanced wound dressing, (2) free full-text availability, (3) publication date between 2010–2025, and (4) English-language studies.



Exclusion criteria: (1) comparisons between two advanced dressings, (2) review articles, and (3) non-English publications.



Eleven studies met inclusion criteria. Data was extracted on wound type, dressing modality, sample size, healing outcomes, and complication rates. Due to heterogeneity in design and outcome reporting, findings were synthesized descriptively.

Results

- Across the 11 included studies, AWD consistently demonstrated improved clinical outcomes compared with standard care.
- Commonly reported benefits included accelerated granulation tissue formation, greater percentage reduction in wound area, and shorter time to epithelialization or closure.
- Several studies described reduced pain, fewer dressing changes, and lower local infection rates. Although outcome measures varied, enhanced healing trajectories was supported across multiple advanced dressing categories.
- No study reported inferior outcomes compared with conventional therapy.

Conclusion

- AWD provide meaningful clinical benefits for chronic wound management
- Improve wound-bed quality, accelerate healing, and reduce complications relative to standard care.
- Broader randomized controlled trials are needed to establish comparative effectiveness across the diversity AWD types.
- current evidence supports incorporating advanced dressings into treatment pathways for chronic and non-healing wounds.

References

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