



HEALTH CARE AND HUMAN SERVICES POLICY, RESEARCH, AND CONSULTING - WITH REAL-WORLD PERSPECTIVE.

Cost Estimates of a Medicare Benefit: Surgical Dressings for Wound Care

Prepared for: The Continuum of Care Coalition

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Overview

- Purpose of the Study
- Background / Context
- Definitions
- Current Coverage
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- Methodology
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Purpose of the Study

- To estimate the costs of implementing the exclusion of payment for surgical dressing from the consolidated per diem cost benefits provided under Part A for inpatients of skilled nursing facilities (SNF), as well as individuals under a home health plan of care, and allow for separate payment to be made under Part B benefits
- This analysis was conducted using Congressional Budget Office (CBO) type scoring conventions

Definitions

- A *wound* is defined as a break in skin or mucous membrane with loss of surface tissue, disintegration and necrosis of epithelial tissue, and often pus
 - Ulcers may be superficial, partial or full thickness
 - Stage I-IV classification system for pressure ulcers
- Medicare has defined all wound care dressings as ‘*surgical dressings*’
 - Passive: gauze and saline based treatment
 - Active: promote and maintain a moist wound environment and/or interact with the wound bed to facilitate healing
- Benefits of *active* surgical dressings
 - Retain moisture and physiological healing environment
 - Promote re-epithelialization and enhanced granulation tissue formation
 - Exclude incorporation of gauze fibers into the wound bed
 - Examples: hydrocolloids, hydrogels, foams, collagen

Background: The proposed legislation will improve the clinical treatments and outcomes for wounds/ulcers

- Active dressing technologies have rapidly developed to improve the clinical treatments and outcomes for wounds
- Skilled nursing facility and home health care beneficiaries generally do not receive advanced wound care using active surgical dressings
 - Seemingly higher initial acquisition cost
 - Providers' confinement by PPS/CB bundled payment
- The proposed legislation aims to de-consolidate active surgical dressings and allow for separate payment to be made under part B benefits for services provided at SNF and HHC sites

Current Coverage: This failure to provide the most effective care is primarily driven by the Medicare PPS payment incentives

■ Wound Care Coverage in SNF

- Prior to admission, a 3-day covered hospital stay is required
- All necessary services are covered by Part A for up to 100 days
- Beyond 100 days, beneficiary is moved to a long-term care setting, which is covered under Part B
- Under Part A coverage, wound care supplies are considered “usual and normal” and included in PPS/CB
- Under Part B coverage, wound care supplies are separately reimbursable

■ Wound Care Coverage in HHC

- In this setting, Part A coverage extends 60 days
- Wound care supplies are considered “usual and normal” and subject to the same restrictive PPS/CB reimbursement schedule

Key Findings: The proposed legislation will yield a cost savings of \$ 4 billion over 5 years

- Almost half of the Medicare cost savings would be Part A savings in SNFs due to improved healing rates resulting in reduction in length of stay

	2010	2011	2012	2013	2014	Total
Medicare Part A SNF Cost Savings Due to Proposed Legislation (in \$millions)	\$242	\$331	\$406	\$462	\$523	\$1,965
Medicare Part A Home Health Cost Savings Due to Proposed Legislation (in \$millions)	\$255	\$276	\$300	\$324	\$349	\$1,504
Medicare Part B Cost Savings Due to Proposed Legislation (in \$millions)	\$79	\$92	\$104	\$115	\$126	\$517
Total Medicare Cost Savings (in \$millions)	\$575	\$700	\$811	\$902	\$998	\$3,986

5-year Model Estimates

- Medicare Part A expenditures related to wound care in SNFs
 - Current policy: \$16,741,649,256
 - Proposed legislation: \$15,025,472,731
 - Cost savings: **\$1,716,176,525**
- Medicare Part A expenditures related to wound care in HHCs
 - Current policy: \$6,255,029,806
 - Proposed legislation: \$4,750,670,091
 - Cost savings: **\$1,504,359,715**
- Medicare Part B expenditures related to wound care
 - Current policy: \$3,716,967,597
 - Proposed legislation: \$3,213,273,402
 - Cost savings: **\$516,644,289**
- Providers' expenditures related to wound care in SNFs
 - Current policy: \$2,005,549,987
 - Proposed legislation: \$1,268,485,504
 - Cost savings: **\$737,064,483**

Methodology

- Four major modules were used in the model to estimate costs - Part A Medicare costs in SNF and home health, Part B costs, and cost to the provider
- For each of these cost modules, the following components were included in the models
 - 1. Determine the size of the target population
 - 2. Estimate the extent to which surgical dressings will be used as standard of care
 - 3. Calculate the cost of the proposed legislation
 - 4. Determine the impact of adopting active surgical dressings as standard of care
 - 5. Determine the cost savings due to active surgical dressings

Literature Review:

Frequency of Dressing Changes

■ Economics of Pressure Ulcer Care¹

- Number of dressing changes per week
- Passive: Mean 15 (range 7 to 28, median 14)
- Active: Mean 2.5 (range 1.4 to 7, median 2)

■ Bay Pines VA Healthcare System²

- Active dressings reduced the mean number of dressing changes per week from 12.9 to 4.9 per patient
- Approximately 3 hours of Registered Nurse (RN) time per patient per week is available for other duties
- Every 12 patients switched from gauze releases the equivalent of one full time RN per week
- “The main determinant of cost-effectiveness in this study was the lower frequency of dressing change observed in the foam treatment regimen.”

1 San Miguel L et al. Economics of pressure-ulcer care: review of the literature of modern versus traditional dressings. *Journal of Wound Care*, Volume 16, No. 1, January 2007, pp 5-9.

2 Payne, WG et al. A prospective randomized clinical trial to assess the cost-effectiveness of a modern foam dressing versus a traditional saline gauze dressing in the treatment of stage II pressure ulcers. *Journal of Ostomy Wound Management*, February 2009, pp 50-55.

Literature Review:

Rate of Healing

- Pressure Ulcer Management in Home Health Care¹
 - Prospective RCT conducted in the home health care setting
 - 64% of stage II ulcers healed at 8 weeks in response to treatment with a transparent moisture vapor permeable dressing (MVP)
 - Compared to 0% healed with gauze and tape dressings
 - Greater median percent decrease in wound area found using MVP dressings
- 2001 meta-analysis²
 - 12 week weighted average healing rate
 - Gauze: 39% of venous ulcers and 51% of pressure ulcers
 - Hydrocolloid: 51% of venous ulcers and 61% of pressure ulcers

1 Sebern, MD. Pressure Ulcer Management in Home Health Care: Efficacy and Cost Effectiveness of Moisture Vapor Permeable Dressing. J Arch Phys Med Rehabil, Vol 67, October 1986, pp 726-729.

2 Kerstein et al. Cost and cost effectiveness of venous and pressure ulcer protocols of care. Dis Manage Health Outcomes, 2001: 9 (11), pp 651-663.

Literature Review: *Rate of Infection*¹

- Passive Dressings
 - Rate of Infection: 5.37%
 - Percent with gangrene: 1.6%
 - Percent amputation: 1.3%
- Active Dressings
 - Rate of Infection: 3.20%
 - Percent with gangrene: 0.96%
 - Percent amputation: 0.80%

¹ J.J. Hutchinson and J.C Lawrence. "Wound Infection Under Occlusive Dressings," Journal of Hospital Infection, 1991, Volume 17, pp83-84.

Literature Review: *Cost Effectiveness*

- Cost of Wound Care
 - Sum of the price of the dressing
 - Labor cost of a health professional changing the dressing
 - Indirect costs (e.g., ancillary supplies and other services)
 - Cost of duration of care (e.g., facility charges and travel for home care)
- Bay Pines VA Healthcare System¹
 - Passive: \$209 per patient per week
 - Active: \$91 per patient per week
- Pressure Ulcer Management in Home Health Care²
 - Passive: \$1359 mean eight-week cost of treatment per ulcer
 - Active: \$845 mean eight-week cost of treatment per ulcer

¹ Payne, WG et al. A prospective randomized clinical trial to assess the cost-effectiveness of a modern foam dressing versus a traditional saline gauze dressing in the treatment of stage II pressure ulcers. *Journal of Ostomy Wound Management*, February 2009, pp 50-55.

² Sebern, MD. Pressure Ulcer Management in Home Health Care: Efficacy and Cost Effectiveness of Moisture Vapor Permeable Dressing. *J Arch Phys Med Rehabil*, Vol 67, October 1986, pp 726-729.

Conclusion

- Surgical dressing technology available for wound care has improved considerably but has not been widely adopted as a treatment method
- Due to factors such as a faster rate of healing, reduced adverse effects/complications and a decrease in the number of dressing changes required, active surgical dressings are a more cost-effective treatment strategy over the duration of treatment
- The proposed legislation to de-consolidate surgical dressings from Medicare PPS/CB will allow for the increased beneficiary access to the most effective and modern treatment modality in wound care
- **\$4 billion** estimated 5-year cost savings of Medicare



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