



**Department of Veterans Affairs
Office of Inspector General**

Healthcare Inspection

**Management of Patients with
Pressure Ulcers in Veterans Health
Administration Facilities**

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DEPARTMENT OF VETERANS AFFAIRS
Office of Inspector General
Washington, DC 20420

TO: Undersecretary for Health (10/10B5)

SUBJECT: Healthcare Inspection — Management of Patients with Pressure Ulcers
in Veterans Health Administration Facilities

Purpose

The Department of Veterans Affairs Office of Inspector General's (OIG) Office of Healthcare Inspections evaluated the Veterans Health Administration (VHA) management of patients with pressure ulcers. The evaluation was conducted to determine if facility managers have: (1) developed and implemented policies, procedures, and guidelines to assist clinicians in providing comprehensive pressure ulcer prevention and management; (2) collected and analyzed pressure ulcer data and evaluated the financial impact of pressure ulcers; and (3) provided pressure ulcer education to clinicians, patients, and external caregivers.

Background

A pressure ulcer is defined as an injury caused by unrelieved pressure, usually over bony prominences, resulting in damage to the skin and underlying tissue.¹ Other terms referring to the same injuries are pressure sores, bedsores, and decubitus ulcers.

More than one million people are affected each year in the United States by pressure ulcers.² Pressure ulcers have significant impact on general health and are common causes of morbidity in hospitalized or mobility-compromised patients.³ Patients who develop pressure ulcers also suffer physical pain, emotional pain from altered body image, and infectious complications. In acute care hospital patients, the pressure ulcer incidence (new cases appearing during a specified time period) and prevalence (a count of the number of all cases, both old and new, at a specific point in time) were as high as 30 percent.^{4,5,6} Some subpopulations may be at higher risk, including spinal cord injury patients (39 percent prevalence).⁷

Both hospital costs and lengths of stay are significantly higher for patients who develop pressure ulcers during hospitalization.⁸ The costs of treating a newly developed pressure ulcer, based on 1994 Medicare data, have been estimated to be over \$50,000 per patient.⁹

Overall costs associated with pressure ulcers in hospitals are estimated to exceed \$55 billion.¹⁰ These costs include additional hospital days, plastic surgery, nursing care, and use of specialized equipment. The estimate for treatment of pressure ulcers is \$1.3 to \$3.6 billion annually in all hospitalized patients.^{11,12}

Preventing pressure ulcers is the most important way to avoid these patient complications and increased costs. The Agency for Healthcare Research and Quality (AHRQ, formerly known as the Agency for Health Care Policy and Research)* clinical guidelines for pressure ulcer prevention and treatment^{13,14} are based on a combination of published evidence, professional judgment, and pilot testing. AHRQ recommendations for individuals at risk for pressure ulcers (such as those with immobility, impaired nutritional status, altered level of consciousness) include daily skin inspections, adequate dietary intake, and frequent repositioning. The Joint Commission on Accreditation of Healthcare Organizations identified prevention of health care-associated pressure ulcers as a 2006 national patient safety goal. Also, reducing the proportion of nursing home residents with diagnoses of pressure ulcers is an objective of the U.S. Department of Health and Human Service's Healthy People 2010, which is a statement of national health objectives designed to identify and reduce preventable threats to health.

VHA has not yet provided comprehensive guidance to its facilities on the prevention and management of pressure ulcers. At the time of this review, only 4 of the 22 Veterans Integrated Service Networks (VISNs) reported that they had provided pressure ulcer guidance to their facilities. VHA officials told us that they are in the process of compiling comprehensive guidance based on AHRQ guidelines.

Currently, VHA has no requirements for reporting pressure ulcer data; therefore, system-wide data are not available. In 2003, the VA Nursing Outcomes Database Project (VANOD), sponsored by the VA National Nursing Executive Council, began collecting data in seven areas to determine the impact of nursing care on patient outcomes. Pressure ulcer prevalence is one of the seven areas, and VANOD is collecting these data twice a year from 12 VHA facilities. VHA officials told us that the data are not yet available.

Scope and Methodology

As part of the OIG's Combined Assessment Program, we reviewed pressure ulcer prevention and management at 24 VHA medical facilities from November 2004 through May 2005. The review included analyses of VISN and facility documents, such as policies, procedures, protocols, and guidelines. In the absence of national VHA guidance, we evaluated each facility's compliance with its own (or its VISN's) policies. Each facility provided a list of all discharged patients who had pressure ulcers in the previous 2 quarters and a list of current inpatients with pressure ulcers at the time of our

* The AHCPR was established in December 1989 under Public Law 101-239 to enhance the quality, appropriateness, and effectiveness of health care services and access to these services.

visit. We selected a sample of 10 pressure ulcer patients at each facility. We reviewed medical records and conducted interviews with pressure ulcer specialists and selected clinicians.

The 240 patients in the sample ranged in age from 46 to 98 and had additional diagnoses, including cancer, diabetes, and dementia. Forty-two percent of the patients were located on acute inpatient units, 39 percent on long-term care units, 12 percent on spinal cord injury units, and 7 percent on other types of units. Of the 240 patients, 87 (36 percent) had pressure ulcers at the time of admission, and the remaining 153 (64 percent) developed pressure ulcers during hospitalization.

Results

Issue 1 — System-Wide Comprehensive Pressure Ulcer Prevention and Management Guidance is Needed

A program for pressure ulcer management must begin with the development of national policies that govern patient care. Highly regarded, evidence-based pressure ulcer prevention and treatment guidance exists from AHRQ. Although some VHA guidance exists for pressure ulcer assessments in long-term care settings, no comprehensive guidance has been issued for all patient care areas. We were told that VHA is preparing to issue guidance consistent with AHRQ. In the mean time, individual facilities (or VISNs) have attempted to create their own policies with widely inconsistent results. Wound care team members told us that guidance from VHA would standardize and improve pressure ulcer care and would raise the importance of this costly and challenging condition.

We reviewed adherence to the applicable facility or VISN policies, as well as the AHRQ guidelines. We acknowledge that some patients are so debilitated that no amount of effort could prevent or reduce pressure ulcers. However, we made an assumption that the consistent provision of reassessments, treatments, and patient education would result in most patients' pressure ulcers improving.

Admission Assessments — All 24 facility policies required skin assessment at the time of admission, and clinicians provided admission assessments in 92 percent (221/240) of the patients in our sample. All 87 patients who were admitted with pressure ulcers had admission skin assessments. However, patients whose pressure ulcers developed during hospitalization had admission skin assessments less consistently, as the table below indicates.

	Pressure Ulcer Present on Admission	Pressure Ulcer Developed During Hospitalization
Admission assessment	87 (100 percent)	134 (88 percent)
Total patients	87	153

Early risk identification was especially critical in these patients because they might have been identified as high risk, and implementation of preventive measures might have prevented the development of the pressure ulcers. AHRQ recommends skin assessments on all patients at admission, using a systematic risk assessment tool. Clinicians used such a tool in 199 of the 221 (90 percent) patients who had admission assessments. These results compare favorably with a study of 854 VHA nursing home patients, where only 61 percent had a standardized assessment performed.¹⁵

Risk Identification and Communication — Once patients are assessed and determined to be at risk for pressure ulcers, a number of interventions may be indicated. These interventions include schedules for turning and repositioning patients, use of specialized equipment (such as mattresses), and nutritional consultations. It is vital that clinicians who perform the initial skin assessments that identify the patients as being high risk communicate this important status to the other interdisciplinary team members caring for the patients. Only half of the facility policies addressed this communication process.

Nutritional Assessments — Ninety-six percent (230/240) of the patients had a nutritional assessment performed. Of these, 220 (96 percent) had nutritional recommendations made, and nearly all the recommendations were implemented. AHRQ recommends that all patients receive nutritional assessments. These results seem to indicate adequate nutritional assessment and implementation of recommendations.

Reassessments — While 92 percent (221/240) of the patients had some reassessments performed, we found that clinicians performed and documented reassessments inconsistently. Clinicians documented that they performed reassessments as frequently as required by policy (such as daily, weekly, upon transfer) in only 52 percent (115/221) of the patients. Reassessments were performed less consistently in the group who developed pressure ulcers during hospitalization, as the table below indicates.

	Pressure Ulcer Present on Admission	Pressure Ulcer Developed During Hospitalization
Reassessed at all	80/87 (92 percent)	141/153 (92 percent)
Reassessed inconsistently	27/80 (34 percent)	79/141 (56 percent)

Clinicians must perform skin reassessments for at-risk patients throughout their inpatient stay, and AHRQ recommends that clinicians reassess pressure ulcers at least weekly. Only 12 facilities had policies that required reassessments daily or weekly.

Under the assumption that the consistent provision of reassessments would result in the pressure ulcers improving, patients who had inconsistent reassessments performed experienced worse outcomes. Of the 106 patients who did not have reassessments done as frequently as required by policy (such as daily, weekly, upon transfer), 62 percent (66/106) of patients' pressure ulcers stayed the same or deteriorated.

Interdisciplinary Care and Treatment Plan — Eighteen facilities had designated a pressure ulcer specialist and had an interdisciplinary team to assist with pressure ulcer management. However, team composition, roles, and responsibilities varied widely among facilities. Team responsibilities included evaluating patients, developing staff education programs, and evaluating products. Only 73 percent (174/240) of patients had assessments done by a team. There was minimal difference between the two groups.

	Pressure Ulcer Present on Admission	Pressure Ulcer Developed During Hospitalization
Team assessment performed	67 (77 percent)	107 (70 percent)
Total patients	87	153

AHRQ states that effective pressure ulcer prevention and management depends on the coordinated efforts of the health care team.

Implementation of Treatments — Treatment measures were prescribed for 98 percent (235/240) of the patients. The most frequent treatments were dressing changes, turning, and special equipment. For nine patients, there was no evidence that any treatments were provided at all. Clinicians performed and documented treatments inconsistently for the remaining 226 patients, with only 54 percent (121/226) receiving all treatments as prescribed. The patients who developed their pressure ulcers during hospitalization had their treatments performed inconsistently more than the other group, as the table below indicates.

	Pressure Ulcer Present on Admission	Pressure Ulcer Developed During Hospitalization
Treatment prescribed and provided at all	83/87 (95 percent)	143/153 (93 percent)
Treatment performed inconsistently	32/83 (39 percent)	73/143 (51 percent)

Under the assumption that the provision of treatments as prescribed would result in the pressure ulcers improving, patients who had inconsistent treatments performed experienced worse outcomes. Of the 105 patients who did not have documented treatments done as prescribed, 60 (57 percent) patients' pressure ulcers stayed the same or deteriorated.

Issue 2 — More Consistent Reporting, Tracking, and Cost Analysis Are Needed

Only 11 of the 24 (46 percent) facility policies addressed pressure ulcer data collection, analysis, or trending. However, pressure ulcer specialists in 22 of 24 facilities (92 percent) told us that they routinely reported pressure ulcer incidence and/or prevalence to a facility committee. Report frequency varied from daily to annually, with weekly as the

most common. AHRQ recommends that clinicians identify and monitor pressure ulcers on a regular basis to determine incidence and prevalence. Specialists in 21 facilities reported that data analysis had resulted in improvement actions, such as education programs and special equipment.

Monitoring and analyzing the financial impact of pressure ulcers was inconsistently performed. Pressure ulcer specialists in 14 of the 24 facilities included some cost factors in their analysis. One facility monitored the following data elements for patients with primary or secondary diagnoses of pressure ulcers:

- Number of admissions
- Bed days of care
- Average lengths of stay
- Average cost per day
- Average cost per admission

This facility’s recent data showed that pressure ulcer patients in acute care settings had average lengths of stay ranging from 24 to 34 days, with average costs per admission from \$22,734 to \$50,669. Pressure ulcer patients in long-term care settings had longer average lengths of stay and higher average costs per admission. Comparison data for patients without pressure ulcers was not provided.

Pressure ulcer incidence, prevalence, and key cost factors provide useful information for managing patient care. We suggest that VHA consider defining the data elements and the frequency of data collection and reporting at facility, VISN, and VHA levels.

Issue 3 — Improved Patient and Staff Education are Needed

Only 8 of the 24 (33 percent) facility policies required that clinicians provide pressure ulcer education to patients and/or their family members or caregivers. Clinicians provided and documented education to only 49 percent (117/240) of the patients. There was minimal difference between the two patient groups.

	Pressure Ulcer Present on Admission	Pressure Ulcer Developed During Hospitalization
Patient education not provided	44 (51 percent)	79 (52 percent)
Total patients	87	153

Education provided to patient and/or family members should include skin inspection and protection, proper cleansing techniques and agents, and correct positioning techniques.

Under the assumption that the provision of patient education would result in the pressure ulcers improving, in 57 percent (70/123) of cases where patients did not receive education, their pressure ulcers stayed the same or deteriorated.

Only 8 of the 24 (33 percent) facility policies addressed pressure ulcer education for their staff. However, 23 of the 24 specialists told us that they were involved in staff education. According to the National Pressure Ulcer Advisory Panel, educational programs for health professionals should include elements of skin assessment, pressure ulcer risk factors, and documentation of skin care programs, including outcomes. Providing education for hospital staff has been shown to decrease pressure ulcer development.¹⁶

Conclusions

Although considerable research has been devoted to pressure ulcer prevention and treatment, many VHA health facilities have not implemented a comprehensive skin care program that provides clinicians and managers with the appropriate resources, tools, and guidelines to deliver optimum pressure ulcer care. While all of the facilities in our study had local or VISN policies, protocols, or guidelines, the documents were inconsistent and often inadequate. Clinicians performed admission assessments and nutritional assessments most of the time. However, we noted vulnerabilities in identifying at-risk patients, performing reassessments according to applicable policy, performing treatments as prescribed, and providing patient and staff education.

Consistent adherence to evidence-based skin care practices, such as the AHRQ guidelines, would promote improved quality of care and better management of resources. The potential benefits include improving patient outcomes and reducing costs. VHA should issue comprehensive national guidance that addresses all the issues in this report.

Recommendation

The Undersecretary for Health needs to ensure that comprehensive guidance regarding pressure ulcer prevention, management, and education is implemented.

Undersecretary for Health Comments

The Under Secretary for Health concurred with the findings and recommendation. A handbook entitled “Assessment and Prevention of Pressure Ulcers” has been drafted, and publication is expected in March 2006. This handbook addresses most of the issues in this report, including the provision of a standardized evidence-based approach to the assessment and prevention of pressure ulcers, the use of the Braden Scale for initial and

ongoing assessment, the provision of a standardized minimum documentation requirement for assessing and preventing pressure ulcers, and provision of patient, family, and caregiver education requirements concerning ulcer prevention and management. In addition, VHA will develop a directive that addresses the remaining issues not addressed in the handbook. The directive will include of a reporting structure and will define the measures for incidence, prevalence, and cost factors associated with pressure ulcers. This information will be utilized by local facilities, networks, and VHA Central Office for the tracking and trending of patient outcomes associated with the assessment, prevention, and management of pressure ulcers.

Inspector General Comments

The Under Secretary for Health's comments and implementation plans were responsive and met the intent of the recommendation. We will monitor the implementation of this recommendation.

(original signed by:)

JOHN D. DAIGH, JR., M.D.
Assistant Inspector General for
Healthcare Inspections

Undersecretary for Health Comments

**Department of
Veterans Affairs**

Memorandum

Date: February 27, 2006

From: Under Secretary for Health (10/10B5)

Subject: **OIG Draft Report, *Management of Patients with Pressure Ulcers in VHA Facilities*, Project Number 2005-00295-HI-0033 (EDMS Folder 339046)**

To: Assistant Inspector General for Healthcare Inspections (54)

1. I have reviewed the draft report, and I concur with the recommendations. I share your concern about the need for developing a comprehensive VHA policy for the management of patients with pressure ulcers. Such a policy will provide consistent guidance to the medical facilities in areas such as pressure ulcer prevention, identification, documentation, assessment, and management; more consistent reporting, tracking, and cost analysis of the care of these patients VHA-wide; and more consistent patient, family member, caregiver, and staff education. A handbook entitled "Assessment and Prevention of Pressure Ulcers" has been drafted by an interdisciplinary workgroup, which addresses most of these issues. This handbook is currently in concurrence, and we anticipate that it will be published in March 2006.
2. To ensure better compliance and consistency among facilities in terms of reporting, tracking, and analyzing costs associated with the care of patients with pressure ulcers, VHA will develop and implement a directive inclusive of a reporting structure. That reporting structure will define the measures for incidence and prevalence associated with pressure ulcers. This information will be utilized by local facilities, networks, and VHA Central Office for tracking and trending of patient outcomes associated with the assessment, prevention, and

management of pressure ulcers. I expect to have this directive published by April 30, 2006. Implementation and monitoring in facilities will begin by September 30, 2006. The Office of Nursing Services will be responsible for the development, publication, and implementation of the directive, in collaboration with the Office of Patient Care Services and the Office of Quality and Performance.

3. An action plan to implement the recommendation is included as an attachment to this memorandum. Thank you for the opportunity to review the draft report. If you have any questions, please contact Margaret M. Seleski, Director, Management Review Service (10B5) at (202) 565-7638.

(original signed by:)

Jonathan B. Perlin, MD, PhD, MSHA, FACP

Attachment

**Under Secretary for Health’s Comments
to Office of Inspector General’s Report**

Action Plan in Response to: OIG Draft Report, Healthcare Inspections: *Management of Patients with Pressure Ulcers in VHA Facilities* (EDMS 339046)

Project No.: 2005-00295-HI-0033

Date of Report: January 4, 2006

Recommendations/ Actions	Status	Completion Date
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Recommended Improvement Action: The Under Secretary for Health needs to ensure that comprehensive guidance regarding pressure ulcer prevention, management, and education is implemented.

Concur

A handbook entitled, “Assessment and Prevention of Pressure Ulcers” has been drafted and is currently in concurrence, with expected publication in March 2006. This handbook addresses most of the issues raised in the OIG’s draft report. The issues addressed include the provision of a standardized evidence-based approach to the assessment and prevention of pressure ulcers in all clinical practice settings, the use of the Braden Scale in all clinical practice settings for initial and ongoing assessment, the provision of a standardized minimum documentation requirement for assessing and preventing pressure ulcers, and provision of patient, family, and caregiver education requirements concerning ulcer prevention and management.

In addition, VHA will develop a directive that addresses the remaining issues contained in the draft OIG report not addressed in the handbook. The directive will be inclusive of a reporting structure and will define the measures for incidence, prevalence, and cost factors associated with

pressure ulcers. This information will be utilized by local facilities, networks, and VHA Central Office for the tracking and trending of patient outcomes associated with the assessment, prevention, and management of pressure ulcers. This information is being placed in a directive to compliment the Pressure Ulcer handbook, as it provides more detailed guidance than that generally found in a handbook.

This directive will be published by April 30, 2006. Implementation and monitoring in facilities will begin by September 30, 2006. The Office of Nursing Services will be responsible for the development, publication, and implementation of the directive, in collaboration with the Office of Patient Care Services and the Office of Quality and Performance.

In process April 30, 2006

OIG Contact and Staff Acknowledgments

OIG Contact	Julie Watrous, Director, Los Angeles Regional Office of Healthcare Inspections (310) 268-3005
Acknowledgments	Annette Acosta Elizabeth Bullock Paula Chapman Victoria Coates Christa Sisterhen Randall Snow Carol Torczon John Tryboski Marilyn Walls Hope Watt-Bucci Susan Zarter

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This report will be available in the near future on the OIG's Web site at <http://www.va.gov/oig/52/reports/mainlist.htm>. This report will remain on the OIG Web site for at least 2 fiscal years after it is issued.

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