Combined Assessment Program
Summary Report

Evaluation of
Infection Prevention Practices in
Veterans Health Administration Facilities

Report No. 11-03361-274

September 13, 2011

VA Office of Inspector General
Washington, DC 20420
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Evaluation of Infection Prevention Practices in Veterans Health Administration Facilities

Executive Summary

The VA Office of Inspector General Office of Healthcare Inspections evaluated selected infection prevention (IP) practices in Veterans Health Administration facilities. The purposes of the evaluation were to determine whether facilities complied with required IP practices in patient care units/areas, trained employees on the Occupational Safety and Health Administration Bloodborne Pathogens Rule, and performed N95 respirator fit testing.

As part of the environment of care review, inspectors evaluated selected IP practices at 69 facilities during Combined Assessment Program reviews conducted from January 1, 2010, through March 31, 2011.

Veterans Health Administration facilities recognized the importance of maintaining consistent IP practices to ensure veterans’ safety and reduce the incidence of health care-associated infections. We noted many consistent and effective IP practices during our inspections. We identified five areas where compliance with selected IP requirements needed to improve. We recommended that the Under Secretary for Health, in conjunction with Veterans Integrated Service Network and facility senior managers, ensures that:

- Corrective actions are initiated when hand hygiene performance falls below established thresholds.
- Ultraviolet germicidal irradiation fixtures are turned on and functional.
- Negative pressure is monitored and within acceptable levels in occupied airborne infection isolation rooms and that results are documented.
- Employees with occupational exposure risk complete annual Occupational Safety and Health Administration Bloodborne Pathogens Rule training and that compliance is monitored.
- Designated employees complete annual N95 respirator fit testing and that compliance is monitored.
TO: Under Secretary for Health (10)


Purpose

The VA Office of Inspector General (OIG) Office of Healthcare Inspections evaluated selected infection prevention (IP) practices in Veterans Health Administration (VHA) facilities. The purposes of the evaluation were to determine whether facilities complied with required IP practices in patient care units/areas, trained employees on the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens Rule, and performed N95 respirator fit testing.

Background

Any health care facility, regardless of its size or location, faces vulnerabilities in the environment, such as infections, cleanliness, and safety hazards. The goal is to reduce and control environmental hazards and risks and maintain safe conditions for patients, visitors, and staff. The physical environment of a health care facility must not only be functional but should also promote healing. Although the majority of health care-associated infections involve clinical factors, a significant number of deaths have been linked to environmental failures. VHA requires managers to conduct environment of care (EOC) inspection rounds and resolve EOC issues in a timely manner. VHA facilities’ EOC and IP programs must fully meet all VHA, OSHA, National Fire Protection Association, and Joint Commission standards. During VA OIG Combined Assessment Program EOC reviews, inspectors have assessed IP practices and determined facility compliance with applicable standards and regulations for many years. Inspectors have presented identified IP deficiencies to facility managers who then developed improvement strategies and tracked deficiencies through to resolution.

All 69 facilities in our review performed the required annual IP risk assessments, and most implemented actions to address high-risk areas and followed up on actions implemented. Nearly all facilities were fully compliant with IP expectations, including
securing and not overfilling sharps containers, separating clean and dirty supplies, and ensuring staff were knowledgeable regarding precautions for patients in isolation.

From October 2010–March 2011, we assessed selected IP practices in 62 Radiology Service areas at 24 facilities. Nearly all facilities were fully compliant with IP expectations, including having readily available hand hygiene products, using clean gloves, and effectively cleaning equipment between patients.

From January–September 2010, we assessed selected IP practices in hemodialysis units/functions at 30 facilities. Nearly all facilities were fully compliant with IP practices, including having and using personal protective equipment, consistently practicing good hand hygiene, and using single-dose and multi-dose medication vials for only one patient.

**Scope and Methodology**

We performed this review at 69 VA medical facilities during Combined Assessment Program reviews conducted from January 1, 2010, through March 31, 2011. The facilities reviewed represented a mix of size, affiliation, geographic location, and Veterans Integrated Service Networks (VISNs). We generated an individual Combined Assessment Program report for each facility. For this report, we analyzed and summarized the data from the individual facility Combined Assessment Program reviews.

We interviewed selected program managers and reviewed documents, including facility self-assessments and training records. Additionally, we conducted physical inspections of selected patient care units. Some of the areas reviewed did not apply to all VHA facilities because of differences in functions or frequencies of occurrences; therefore, denominators differ in our reported results. We used 90 percent as the general level of expectation for performance in the areas discussed below.

Inspectors conducted the reviews in accordance with *Quality Standards for Inspection and Evaluation* published by the Council of the Inspectors General on Integrity and Efficiency.

**Inspection Results**

**Issue 1: IP Practices in Patient Care Units/Areas**

From January–September 2010, we assessed selected IP practices during EOC inspections at 45 facilities and identified the following opportunities for improvement.
The Joint Commission requires facilities to set goals to improve hand hygiene compliance and to initiate corrective actions when established goals are not met. Facilities may measure compliance by monitoring the use of hand hygiene products or by observing staff providing patient care. We reviewed facilities’ hand hygiene data and determined that five facilities (11 percent) did not initiate corrective actions when warranted.

Facilities may use ultraviolet germicidal irradiation (UVGI) fixtures as an air cleaning method in high-risk areas such as patient rooms, emergency rooms, and public waiting areas. Of the 42 patient care areas inspected that used UVGI fixtures, 6 (14 percent) had fixtures that were not turned on and/or functional.

Patients with suspected or diagnosed infections such as pulmonary tuberculosis must be isolated in negative air pressure rooms to prevent the spread of the airborne pathogens. The negative air pressure ensures that the air is exhausted to the outside of the building from these types of rooms instead of being recirculated into other rooms or hallways. The Centers for Disease Control and Prevention recommends that staff monitor occupied airborne infection isolation (AII) rooms daily for proper negative air pressure and record the results. We inspected 116 patient care units that had at least one AII room. Eleven (9 percent) of the patient care units did not have negative pressure logs. Of the 105 units with logs, negative pressure was not documented on 13 (12 percent) of the units.

We recommended that:

- Corrective actions are initiated when hand hygiene performance falls below established thresholds.
- UVGI fixtures are turned on and functional.
- Negative pressure is monitored and within acceptable levels in occupied AII rooms and that results are documented.

**Issue 2: OSHA Bloodborne Pathogens Rule Training**

OSHA requires facilities to ensure that employees with occupational exposure risk complete annual Bloodborne Pathogens Rule training. Training topics include an explanation of the epidemiology and symptoms of bloodborne diseases, an explanation of the modes of transmission of infection, and information on the hepatitis B vaccine. We reviewed clinical and housekeeping employees’ training records for evidence of annual training. We found that 16 (23 percent) of the 69 facilities were not in compliance.

We recommended that employees with occupational exposure risk complete annual OSHA Bloodborne Pathogens Rule training and that supervisors monitor compliance.

**Issue 3: N95 Respirator Fit Testing**

N95 respirators provide a higher level of respiratory protection than surgical grade masks for health care workers caring for patients with certain airborne infections. OSHA requires facilities to ensure that designated employees are tested for proper respirator fit prior to initial use and at least annually thereafter.³ Sixty-six of the 69 facilities in our review required N95 respirator use. We reviewed fit testing records of employees who worked in emergency rooms, medical units, radiology, bronchoscopy, and community living centers and were designated to use N95 respirators. Table 1 below shows non-compliance for employee fit testing by work area.

**Table 1**

<table>
<thead>
<tr>
<th>Percentage of Designated Employees Who Were not Fit Tested Annually</th>
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<tbody>
<tr>
<td>Emergency Rooms</td>
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<tr>
<td>Medical Units</td>
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<tr>
<td>Radiology</td>
</tr>
<tr>
<td>Bronchoscopy</td>
</tr>
<tr>
<td>Community Living Centers</td>
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</tbody>
</table>

We recommended that designated employees complete annual N95 respirator fit testing and that compliance is monitored.

**Conclusions**

VHA facilities demonstrated many consistent and effective IP practices. However, compliance with applicable IP requirements needs to improve in the areas of hand hygiene corrective actions, UVGI fixture usage, AII room monitoring and documentation, OSHA Bloodborne Pathogens Rule training, and N95 respirator fit testing.

**Recommendations**

**Recommendation 1.** We recommended that the Under Secretary for Health, in conjunction with VISN and facility senior managers, ensures that corrective actions are initiated when hand hygiene performance falls below established thresholds.

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Recommendation 2. We recommended that the Under Secretary for Health, in conjunction with VISN and facility senior managers, ensures that UVGI fixtures are turned on and functional.

Recommendation 3. We recommended that the Under Secretary for Health, in conjunction with VISN and facility senior managers, ensures that negative pressure is monitored and within acceptable levels in occupied AII rooms and that results are documented.

Recommendation 4. We recommended that the Under Secretary for Health, in conjunction with VISN and facility senior managers, ensures that employees with occupational exposure risk complete annual OSHA Bloodborne Pathogens Rule training and that compliance is monitored.

Recommendation 5. We recommended that the Under Secretary for Health, in conjunction with VISN and facility senior managers, ensures that designated employees complete annual N95 respirator fit testing and that compliance is monitored.

Comments

The Under Secretary for Health concurred with the findings and recommendations. The implementation plan is acceptable, and we will follow up until all actions are completed.

JOHN D. DAIGH, JR., M.D.
Assistant Inspector General for Healthcare Inspections
Under Secretary for Health Comments

Department of Veterans Affairs Memorandum

Date: August 2, 2011
From: Under Secretary for Health (10)

To: Assistant Inspector General for Healthcare Inspections (54)

1. I have reviewed the draft report and concur with all five of the report’s recommendations. Attached is the Veterans Health Administration’s (VHA) corrective action plan for the report’s recommendations.

2. Thank you for the opportunity to review the draft report. If you have any questions, please contact Linda H. Lutes, Director, Management Review Service (10A4A4) at (202) 461-7014.

(original signed by:)
Robert A. Petzel, M.D.

Attachment

Date of Draft Report: June 28, 2011

Recommendations/ Status Completion
Actions Date

**Recommendation 1.** We recommended that the Under Secretary for Health, in conjunction with VISN and facility senior managers, ensures that corrective actions are initiated when hand hygiene performance falls below established thresholds.

**VHA Comments**

Concur

VHA Office of the Deputy Under Secretary for Health for Operations and Management (DUSHOM) and the Office of the Deputy Under Secretary for Health for Policy and Services (DUSHPS), Office of Public Health, are conducting a survey to explore what hand hygiene tools are being used and how these tools are being used. Based on the results of the survey, the Infection Don’t Pass It On (IDPIO) workgroup will create a toolkit and the DUSHOM will distribute the toolkit to facilities for implementation.

<table>
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<tr>
<th>Status</th>
<th>Completion Date</th>
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<tbody>
<tr>
<td>In process</td>
<td>Hand washing Tool Survey will be completed September 30, 2011 Toolkit to be assembled by January 31, 2012</td>
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The DUSHOM will schedule a data call to each facility. The Hospital Epidemiology/Infection Control staff will complete the data which will be used to assess how facilities are meeting the intent of the current hand
wearing directive and how they modify practices when hand washing compliance is inadequate.

In process

Hand washing Assessment Survey
to go out by December 30, 2011

A meeting between field quality managers/infection control staff and VHA Central Office program office staff from DUSHOM Clinical Operations and staff from DUSHPS Infectious Disease Program Office, Patient Care Services and Occupational Health/Center for Occupational Health Infection Control, Office of Public Health, will be held to evaluate the effectiveness of:

- recent hand washing pilot programs,
- lessons from the National Center for Patient Safety’s (NCPS) Six-Sigma hand-washing project,
- IDPIO toolkit, and
- potential innovative evaluation methods.

The DUSHOM and DUSHPS will use results from this meeting to develop pilot projects to compare and implement hand washing interventions and assessments. The group will also evaluate strategies on developing measurement techniques to support national reporting through the quality indicators Web site.

In process Meeting to be Scheduled by October 31, 2011

Recommendation 2. We recommended that the Under Secretary for Health, in conjunction with VISN and facility senior managers, ensures that UVGI fixtures are turned on and functional.

VHA Comments

Concur

The DUSHOM and the DUSHPS, Office of Public Health, will collaborate to determine the reason for non use of ultraviolet germicidal irradiation (UVGI) fixtures and whether non-use of UVGI is a reasonable strategy at VHA facilities. A report including recommendations for appropriate
actions will be completed with an action plan and timeline to implement any recommendations by December 31, 2011.

| In process | Report to be completed by December 31, 2011 |

**Recommendation 3.** We recommended that the Under Secretary for Health, in conjunction with VISN and facility senior managers, ensures that negative pressure is monitored and within acceptable levels in occupied AII rooms and that results are documented.

**VHA Comments**

**Concur**

The DUSHOM and DUSHPS, Office of Public Health, have designed a survey of Airborne Infection Isolation (AII) rooms to ensure that negative pressure is monitored. The survey will address design, construction, and maintenance practices of AII rooms in facilities. The DUSHOM and DUSHPS will analyze the information from the survey, consider current standards and needs, and take appropriate corrective actions. The DUSHOM will issue an Information Letter with the results and recommendations.

| In process | Pilot of Survey by September 30, 2011 |
|           | Full Survey completed by November 30, 2011 |
|           | Analysis and identification of issues with action plan and timelines developed NLT December 30, 2011 |
|           | Intervention, April 30 2012 |

**Recommendation 4.** We recommended that the Under Secretary for Health, in conjunction with VISN and facility senior managers, ensures that
employees with occupational exposure risk complete annual OSHA Bloodborne Pathogens Rule training and that compliance is monitored.

**VHA Comments**

Concur

The DUSHPS and the DUSHOM will collaboratively review the Occupational Safety and Health Administration (OSHA) standard for completion of annual bloodborne pathogens Rule training as well as existing information provided to VHA field facilities about the requirement; update existing information to re-emphasize the need to comply with the OSHA standard; and develop requirements for monitoring and compliance in field facilities. To operationalize this in the field, appropriate information will be developed to outline requirements for facilities to have appropriate staff complete the testing and ensure facility leadership monitor that the testing is completed.

In process December 31, 2011

**Recommendation 5.** We recommended that the Under Secretary for Health, in conjunction with VISN and facility senior managers, ensures that designated employees complete annual N95 respirator fit testing and that compliance is monitored.

**VHA Comments**

Concur

The DUSHOM will issue a memorandum to the field re-emphasizing the compliance with N95 fit testing for designated employees. This communication will address the need to ensure compliance is monitored.

In process December 31, 2011
## OIG Contact and Staff Acknowledgments

<table>
<thead>
<tr>
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