Department of Veterans Affairs
Office of Inspector General

Healthcare Inspection

Alleged VistA System Malfunction
Olin E. Teague Veterans Center
Temple, Texas

Report No. 05-03098-88

February 15, 2006

VA Office of Inspector General
Washington, DC 20420

To Report Suspected Wrongdoing in VA Programs and Operations
Call the OIG Hotline – (800) 488-8244

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

TO: Director, Veterans Integrated Service Network (10N17)

SUBJECT: Healthcare Inspection — Alleged VistA System Malfunction, Olin E. Teague Veterans Center, Temple, Texas

Purpose

The Department of Veterans Affairs Office of Inspector General's (OIG) Office of Healthcare Inspections (OHI) conducted an inspection to determine the validity of allegations regarding the Veterans Health Information System and Technology Architecture (VistA) [1] malfunction at the Olin E. Teague Veterans Center, in Temple, Texas. This facility is part of the Central Texas Veterans Health Care System.

Background

The U.S. Office of Special Counsel received the allegations from a former laboratory technician at the Olin E. Teague Veterans Center in Temple, Texas. They referred the allegations to the VA OIG's Hotline Division.

The complainant alleged there was a VistA system malfunction as used by laboratory personnel. When the staff generated specimen collection lists, some orders were identified as cancelled by the person requesting the list. The laboratory employee had not initiated the cancellations. He reported this problem to the shift supervisor and a computer support laboratory technician. The complainant stated that during the following 6 weeks the computer continued to spontaneously cancel laboratory orders. He identified one patient whose treatment may have been delayed by the cancellation of a timed laboratory request for blood levels of Cortisol. The complainant provided no written documentation to support either allegation.

[1] The current version is LAB v5.2 installed March 4, 1995.

The following issues were reviewed for the above allegations:

- VistA system malfunction
- Delay in treatment

Scope and Methodology

OHI inspectors interviewed the complainant on August 29, 2005. A site visit was made to the Olin E. Teague Veterans Center in Temple, Texas, on August 30 through September 1, 2005. Fourteen employees were interviewed, including laboratory, computer support, and administrative staff involved in the use and operations of the VistA. Policies and procedures, medical records, and random laboratory requests from the inpatient wards were reviewed.

We conducted the review in accordance with the *Quality Standards for Inspections* published by the President's Council on Integrity and Efficiency.

Results

I. Case Review

The patient was a 56-year-old male, with a history of cerebrovascular accident with secondary blindness, seizures, congestive heart failure, benign prostate hypertrophy, and dementia. He was living in a nursing home in Marlin, Texas.

This patient had undergone a recent cystoscopy that revealed a urethral stricture with a stone behind the stricture. He was admitted to the urology service on July 17, 2005, to undergo an open cystotomy with urethrotomy for recurrent urinary tract infections secondary to nephrolithiasis and urethral stricture.

Although the procedure was difficult and lengthy due to the size and location of the stone, he tolerated the procedure well with no complications. Postoperatively, he developed atrial fibrillation and shock, requiring intubation with mechanical ventilation. He rapidly deteriorated and passed away on July 20, 2005.

On July 19, 2005, the attending physician had ordered a Cosyntropin stimulation test[2] followed by timed blood Cortisol levels. The specimens were to be collected as a baseline, and at 30, 60, and 90 minutes after the Cosyntropin stimulation test.

- The physician requested the baseline Cortisol order stat[3] and the specimen was obtained and processed.

[2] Cosyntropin is injected into the patient to stimulate the production of Cortisol which is a hormone synthesized in the adrenal cortex. This test is used to measure adrenal insufficiency.

- The 30-minute Cortisol order was entered in the routine collection list, as was the one for 60 minutes.

- The 30 and 60-minute Cortisol orders appeared on the same collection list, resulting in the cancellation of the 60-minute order when VistA recognized the order as a duplicate.

- The laboratory supervisor received a blood specimen from the ward but found no order for the 60-minute Cortisol test. Nursing staff contacted the laboratory, and a new order for Cortisol was entered into VistA for the 60-minute specimen.

- All blood specimens for Cortisol were collected, processed, and reported as ordered.

II. Findings

Issue 1: Delay in Treatment

We did not substantiate the allegation of delay in treatment of patients.

We reviewed six physician ordered blood tests including the patient case described above. All blood specimens were collected, processed, and results reported within 24 hours. Stat orders and immediate collect orders had turn around times averaging 60 minutes for completion and reporting.

We interviewed 14 staff, reviewed 6 medical records, and tracked 5 random laboratory specimen requests for process review and timeliness. We found the patients received an acceptable standard of medical care.

Issue 2: VistA System Malfunction

We did not substantiate the allegation of a computer system malfunction.

The complainant alleged the VistA system in the laboratory was malfunctioning by canceling blood specimen collection orders. The name of the staff member generating the blood specimen collection list was then identified by VistA as canceling the order. Although this is true, it is in accordance with program design. VistA is programmed to identify and delete duplicate orders. VistA will combine orders if there are two of the same tests to be drawn at the same collection time for a single patient. It will attach the name of the person generating the collection list as the person canceling the duplicate order.

[3] Stat means immediately; all requests for stat laboratory tests must be called in to the laboratory at this facility. This policy is included in the facility laboratory policies and procedures on page 4 section 3.

The complainant had reported his concerns to the laboratory shift supervisor and the VistA support laboratory technician who explained the features of VistA to the complainant.

We did substantiate the VistA system does cancel orders identified as duplicates as in the case of timed orders, i.e. Cortisol. Staff entering the orders in VistA should be aware of this and enter timed orders as ward collect or immediate collect according to policy.

Conclusion

We did not substantiate the allegations made by the complainant. Management was aware of the duplicate order cancellation feature by the VistA program. Information systems staff at the national level have been working on modifying this feature through patch LR*5.2*255 Multidivisional Collection List, which is currently under development. The patch creates a new user "LRLAB TASKMAN." When the collection list is generated, "LRLAB TASKMAN" will be the user assigned instead of the user requesting the collection list.

We did identify the need for staff training in the process of entering laboratory orders in Vista.

Recommendations

Recommendation 1. We recommend that the Medical Center Director ensure that Management ensures all medical staff entering laboratory orders in VistA are properly trained to enter timed requests and prevent unnecessary cancellations.

Recommendation 2. We recommend that the Medical Center Director ensure that Quality Management monitors the effectiveness of staff orientation, education, and training through staff competency data collection.

VISN and Medical Center Director Comments

The VISN Director and Medical Center Director concurred with the results of this inspection and have taken actions to implement the recommendations in this report (See Appendix A, B, and C, page 6-12, for VISN and Medical Center Director comments).

Assistant Inspector General for Healthcare Inspections Comments

The VISN and Medical Center Directors agreed with the findings and recommendations and provided acceptable improvement plans. We will follow up on planned actions until they are completed.

(original signed by:)
JOHN D. DAIGH JR., M.D.
Assistant Inspector General for
Healthcare Inspections

Appendix A

VISN 17 Director Comments

Department of Veterans Affairs **Memorandum**

Date: January 3, 2006

From: Director, VA Heart of Texas Veterans Health Care Network (10N17), Arlington, TX

Subject: **Alleged Information System Malfunction and Delay of Treatment Olin E. Teague Veterans Center, Temple, Texas**

To: Assistant Inspector General for Healthcare, Office of the Inspector General, Washington, DC

Thru: Director, VHA Management Review Service (10B5), Washington, DC

1. VISN 17 submits the attached response to the Draft Report of the Healthcare Inspection of the Central Texas Veterans Healthcare System.

2. Point of contact for additional information is Maureen Washburn, VISN 17 Acting Quality Manager, 817-675-3883.

(original signed by:)

Thomas J. Stranova

VISN Director's Comments to Office of Inspector General's Report

The following VISN Director's comments are submitted in response to the recommendations in the Office of Inspector General's Report:

OIG Recommendations

Recommendation 1. We recommend that the Medical Center Director ensure that Management ensures all medical staff entering laboratory orders in VistA are properly trained to enter timed requests and prevent unnecessary cancellations.

Concur **Target Completion Date:** 2/17/06

See HCS Director's response.

Recommendation 2. We recommend that the Medical Center Director ensure that Quality Management monitors the effectiveness of staff orientation, education, and training through staff competency data collection.

Concur **Target Completion Date:** 2/28/06

See HCS Director's response.

Appendix B

Medical Center Director Comments

Department of Veterans Affairs **Memorandum**

Date: December 29, 2005

From: Director (00), Central Texas Veterans Health Care System, Temple, TX

Subject: **Alleged Information System Malfunction and Delay of Treatment Olin E. Teague Veterans Center, Temple, Texas**

To: Hotline Division, Office of the Inspector General (OIG), Washington, DC
ATTN: Linda DeLong

Thru: Director (10N17), Heart of Texas Veterans Health Care Network, Arlington, TX
ATTN: Maureen Washburn

1. The OIG conducted a site visit to CTVHCS August 30 - September 1, 2005, to determine the validity of the following allegations: 1) Delay in treatment of patients and 2) Veterans Health Information System and Technology Architecture (VistA) malfunction.

2. Although the OIG did not substantiate the allegation regarding a delay in treatment of patients, they did substantiate a malfunction in the VistA package related to the canceling of blood specimen collection orders.

3. CTVHCS is submitting 1) the attached action plans, 2) a copy of the memorandum addressing Health Stream training on ordering laboratory specimen, and 3) a copy of the Health Stream Lab Order Entry Power Point presentation training in response to the recommendations in the OIG's report.

4. If you should have further questions, please contact Sylvia Tennent,

Chief, Quality Management and Improvement Service at 254-743-0719, or Ronald Weaver, Continuous Quality Improvement Coordinator at 254-743-1315.

(original signed by:)

Bruce A. Gordon

Attachment - Appendix C – Lab Ordering Memo
To view the Health Stream Lab Order Entry Training Presentation - contact OIG Healthcare Inspection staff

Medical Center Director's Comments to Office of Inspector General's Report

The following Medical Center Director's comments are submitted in response to the recommendations in the Office of Inspector General's Report:

OIG Recommendations

Recommendation 1. We recommend that the Medical Center Director ensure that Management ensures all medical staff entering laboratory orders in VistA are properly trained to enter timed requests and prevent unnecessary cancellations.

Concur **Target Completion Date:** February 17, 2006

A Lab Order Entry (PowerPoint Presentation) Training was developed by Education Service in conjunction with Pathology and Laboratory Medicine Service. The training was entered in the System's Educational Package (Health Stream) to include a post test of which will require completion by all physicians, nurse practitioners, physician assistants, selected unit clerks, and nursing staff who input laboratory orders into VISTA. The required completion date of the training is February 17, 2006.

Recommendation 2. We recommend that the Medical Center Director ensure that Quality Management monitors the effectiveness of staff orientation, education, and training through staff competency data collection.

Concur **Target Completion Date:** February 28, 2006

Health Stream training on "Lab Order Entry" will include a post-test. Results will be monitored monthly by Quality Management & Improvement Service (QM&IS) with reports to the Executive Council.

Pathology & Laboratory Medicine Service (P&LMS) will modify current quarterly monitor to include additional criteria for monitoring the accuracy and appropriateness of lab orders.

"Client Concern Report": Client Concern Reports are synonymous with "incident report" and are generated by P&LMS staff each time they encounter an error, omission, significant delay, complaint, etc. Each time a report is filed related to an order entry error, corrective action is taken in terms of notifying the specific provider to make the correction and notifying the appropriate service chief of the incident. The individual services are responsible for monitoring the performance of their personnel overtime with regard to laboratory order entry errors and taking corrective action when necessary to improve the performance of individuals. The responsible service chiefs will provide a quarterly report to the Executive Council relative to staff compliance. Quarterly Client Concern Summary Reports will be submitted to QM&IS by P&LMS of which will be submitted to the Executive Council (current quality oversight).

"Lab Order Entry" training will be added to the required service specific orientation training for all new medical staff and appropriate new nursing staff, pharmacists, and clerks. The Management of Human Resources Committee will be assigned responsibility to ensure that appropriate services add this training to their service specific orientation training for new employees, monitor compliance monthly for 6 months, then quarterly, and include updated reports in the committee's quarterly report to the Executive Council.

QM&IS will provide oversight for all of the monitoring activity.

Appendix C

Lab Ordering Memo

December 28, 2005

Acting Chief of Staff (011)

Ordering Laboratory Specimens

Physicians, Nurse Practitioners, Physician Assistants, Selected Unit Clerks and Nurses

1. In September 2005, a site visit of the Central Texas Veterans Health Care System (CTVHCS) was conducted by an Office of Inspector General (OIG) team, due to alleged problems with ordering laboratory specimens. During the investigation of the complaint, inspectors found a significant number of CTVHCS providers were confused about specimen ordering procedures.

2. In response to OIG findings, subject matter experts from Pathology and Laboratory Medicine Service developed an educational course and post-test, which are available on HealthStream. Education Service personnel estimate that most providers will be able to complete the course in approximately 20-25 minutes.

3. All providers (physicians, nurse practitioners, and physician assistants) who enter laboratory orders in VISTA are required to review and complete the course by
February 17, 2006. Nursing staff and unit clerks who are responsible for entering verbal orders into the Computerized Patient Record System on a regular basis will
also be required to complete the HealthStream course. This is a one-time mandatory requirement.

4. The material covered in this course will be incorporated into a New Provider Orientation Program, which is currently under development.

5. Point of contact is Kenneth G. Torrington, M.D., Associate Chief of Staff for Education, at extension 41710.

(original signed by:)
Donald Kasperik, M.D.

Appendix D

OIG Contact and Staff Acknowledgments

OIG Contact	Wilma Reyes, Healthcare Inspector, Dallas Office of Healthcare Inspections, (214) 253-3334
Acknowledgments	Linda DeLong Karen Moore Roxanna Osegueda Marilyn Walls

Appendix E

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