



**Statement of Mike Sicilia, Executive Vice President, Global Industries
Oracle Corporation**

Before the

**U.S. House
Committee on Veterans' Affairs
Subcommittee on Technology Modernization**

Hearing on

“Electronic Health Record Modernization Deep Dive: Pharmacy”

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Introduction:

Chairman Rosendale, Ranking Member Cherfilus-McCormick and members of the Subcommittee, thank you for the opportunity to speak with you today about Oracle's work with the Department of Veterans Affairs' (VA) Electronic Health Record Modernization (EHRM) program, specifically the pharmacy capability of the Electronic Health Record (EHR).

I am Mike Sicilia, Executive Vice President for Global Industries at Oracle. I am responsible for the Oracle Health Business Unit, including Oracle Cerner.

I am joined by Dr. James Ellzy, Vice President Federal, Health Executive and Market Leader. Dr. Ellzy knows the EHR modernization project from both VA and the Department of Defense (DoD) perspectives, having previously served at the Defense Health Agency. We are glad to have him on our Oracle Cerner team providing his expertise and knowledge.

It has been nearly one year since Oracle acquired Cerner and assumed its responsibilities under the EHRM contract with VA. In the time since the acquisition's closing, Oracle has made significant progress on many critical issues that were impacting the EHR system. We recounted this work in our [2022 Year-End Congressional Report](#), and more recently in my [testimony](#) to the Senate Committee on Veterans' Affairs in March.

With VA's announcement on April 21, 2023, of a reset for the EHRM program, I want to state again that Oracle is proud to continue working together with VA to modernize its EHR system. We support VA's plan to improve the operation of the EHR at the current sites and take the necessary time to institute governance, change management and standardization changes to ensure the success of future VA deployments, similar to what DoD did a few years ago. DoD's modernization is now nearly complete, on time and on budget.

We will continue to closely coordinate with VA to provide enhancements and updates to the EHR. We appreciate Secretary McDonough's leadership on this project and reiterate our commitment to providing VA and our nation's veterans with an EHR that exceeds expectations.

Pharmacy Toplines:

In June 2022 when Oracle completed its acquisition of Cerner, and I first began meeting with Members of Congress to discuss EHRM, addressing the need for enhancing the EHR's pharmacy capabilities was one of the top things I heard about in meeting after meeting. Some Members of Congress were concerned that the pharmacy enhancements were beyond the scope of what we could do and that perhaps a third party would need to be utilized.

Members were especially concerned because at that time, Cerner had provided estimates of up to three years to complete the enhancements VA was seeking for the pharmacy capability, which clearly was unacceptable.

Every Member of Congress I met with asked us to speed up that timeline. And we did it.

We knew that proving our ability to get these enhancements done well and quickly would be key to establishing a positive relationship with VA for all of the other work that needed to be done, and critical to show EHR users, veterans and Congress that Oracle does what it says it will do.

So, once the requirements for the pharmacy enhancements were delivered to us by VA in August, we built and deployed the top three enhancements to VA in four months.

Again, four months. Not three years.

The remaining four enhancements will be delivered this year for deployment in 2023 and early 2024. That's a significantly faster overall timeline, and this speed is possible because of the engineering rigor Oracle brings to the table as VA's new partner.

And the enhancements delivered thus far are working for providers and improving their ability to get medicine to veterans quickly and accurately.

At the five medical centers live on the new EHR today, veterans are receiving their prescriptions at the same rate as they were prior to the facility converting from VistA.

On average more than 200,000 prescriptions are being filled each month, and to-date 2.8 million prescriptions have been filled through the Consolidated Mail Outpatient Pharmacy (CMOP), which is the top interface in the entire program. Prescriptions are filled at the facility or by mail order, as directed by providers and pharmacists when making the order in the EHR.

When a veteran comes in to get a prescription, the average window turnaround time across the currently live sites is 25 minutes - below the 30 minute key performance metric set by VA. We recognize VA has added additional staff in pharmacy, and we are working with VA on enterprise standards that will help control costs and increase productivity.

One way to control drug costs is the addition of National Prior Authorization, which ensures that all VA Medical Centers in the new EHR are using the same clinical decision-making to adjudicate non-formulary requests. This not only helps save money in the overall health system by reducing the amount of inappropriate high cost, non-formulary approvals when formulary cost-friendly options are available, but also saves money directly related to EHR

modernization costs because this addition only needs to be made once rather than adapting it for 130 instances of VistA.

We also have added filters, as explained in more detail below, to allow VA to filter work and segregate pharmacy labor each day.

In the new Oracle Cerner EHR the function for entering pharmacy orders and managing drug therapy for a patient is referred to as Retail Medication Manager, or MMR. MMR assists with basic tasks, such as identifying a patient, selecting drugs or other pharmacy products, and entering, reviewing, and modifying orders. MMR allows pharmacists to access a dynamic store of clinical, demographic, and therapeutic information about each patient. A provider or pharmacist can check a patient's health status and then implement an individualized drug therapy.

One benefit of the new EHR system is that it integrates relevant data sources into a single provider view. Pharmacists are able to view VA and community care prescriptions in one queue rather than having to go to separate queues for each, as in VistA. Pharmacists see relevant clinical information and lab values – including renal function – face up during the entirety of medication evaluation and processing, a capability that is not present in VistA without leaving the order to go to another screen, which is less efficient.

The results tab embedded into MMR provides a more comprehensive view of the lab results flowsheet. Pharmacists are able to leverage this information to assess labs to ensure veterans with substance use disorders have the appropriate labs completed to assist in prescription drug management. If a veteran being treated with Suboxone for substance use disorder has a positive test in their urinalysis for other opioids, the pharmacist will see that and be able to notify the provider.

The new EHR has medication clinical decision support functions that require pharmacist intervention for drug-drug interaction concerns. Additionally, it sends discern alerts to notify and prompt pharmacists for missing relevant information such as whether the veteran is missing a drug allergy assessment. From that discern alert, the pharmacist can complete that relevant documentation.

Finally, the new EHR allows an outpatient pharmacist to have visibility of medications that were administered during a veteran's inpatient visit. The pharmacist can leverage this during the discharge process to ensure there are not medication gaps as the veteran transitions from inpatient to the next level of care.

All of these features provide a higher degree of safety for veterans as they receive their medications.

Pharmacy Overview:

A typical Oracle Cerner Millennium commercial EHR system contains functionality that enables the ordering of a prescription by the provider; the receiving pharmacy then utilizes its own software for the dispensing of the medication. Our original contract with VA for its EHRM program included these standard Oracle Cerner Millennium pharmacy capabilities.

However, after deployment first in Spokane and later at additional sites in Washington, Oregon and Ohio, it became apparent that the baseline Millennium pharmacy capabilities originally contracted needed to be enhanced to encompass the level of tight integration required to meet VA's Outpatient Pharmacy needs.

In the commercial sector providers utilize the EHR to send prescriptions to the patient's pharmacy of choice – perhaps Walgreens, CVS or a local pharmacy. The commercial health care entity is the ordering party for the prescription, but a separate commercial pharmacy is the dispensing party for the prescription.

In the VA healthcare system, VA is both the ordering party and the dispensing party. Therefore in the VA healthcare system the EHR needs to support the supplying components for filling prescriptions. This fundamental difference is the reason for the pharmacy enhancements to tighten the integration between the outpatient pharmacy application and the provider ordering application.

Pharmacy Updates and Enhancements:

VA has issued two primary Task Orders – Number 31 and Number 52 – for updates and enhancements to the pharmacy capability. The table attached as Appendix 1 summarizes the status of each item.

In addition, Oracle regularly provides EHR system updates including for the pharmacy capability. As part of our product life cycle to enhance our software, Oracle Cerner updated the History action function as a part of the Block 8 upgrade. Pharmacists use this function to access previously prescribed outpatient prescriptions and associated activity to increase efficiencies and inform processes. Before this upgrade, it took an average of 15.3 secs pre-Block 8 and now takes 1 second to execute. This upgrade eliminated the problem for 2,600 users with 40,000 monthly instances.

In total, fourteen stability and performance improvements were added to the outpatient pharmacy application with Block 8. These were done to improve the end user experience and support their workflow and experience.

Block 8 Updates:

In the Block 8 system update in February 2023, three critical pharmacy enhancements from Task Order 52 were made – Numbers 1, 2 and 3a. Additionally, an update from Task Order 31 was made.

Enhancement Number 1: Toggle Prescription Synonym Visibility

This enhancement guides providers to order prescriptions or supplies based on what is formulary and fillable through the VA or its mail system (CMOP). The intent is to reduce re-work efforts needed by pharmacists and providers to adjust prescriptions after the initial order entry, which will mean less re-work if a local VA site cannot fill a prescription. This streamlined the amount of prescriptions a provider sees by almost 50 percent to better provider and pharmacy experience in addition to increasing productivity.

Enhancement Number 2: Optional Order Stop Date in Retail Med Manager

This enhancement allows ongoing medications for a patient to stay on the patient's active medication list even after the legal date has been met and regardless of whether a veteran's prescription was originally ordered within the EHR or from a community care provider. This will ensure providers and pharmacists continue to have better visibility to a veteran's medications even when a new prescription is needed.

Enhancement Number 3a: Display Legal Rx Expiration Date in Orders

This enhancement gives visibility for providers when a prescription is no longer fillable because it is past the legal expiration date, which will help identify when a new prescription is needed and allow for more timely prescription renewals.

It's not uncommon for a veteran to be taking multiple prescriptions and often double digit prescriptions to meet their medical needs. During a provider visit with a veteran, the provider will conduct prescription management to re-order/refill all a veteran's medications to allow them to continue to receive supply from VA. Therefore a legal expiration date of a prescription was needed as this info comes from VA pharmacy.

Task Order 31: E-Rx Monitoring Filling

This enhancement improves the E-Rx Monitor filter. Electronic prescriptions are processed from VA and non-VA providers in the E-Rx Monitor. Filtering the monitor allows for pharmacists to segregate their labor pool daily and have a pharmacist focus on singular aspects of workflow, for example community care prescriptions from a non-VA provider.

Task Order 31: Weekly Multum Release

This enhancement increased the release cadence for Multum content to move from monthly releases to release weekly, allowing for increased delivery of drug content as it is updated.

Overall, these enhancements have improved the productivity levels for end users by enhancing usability between the EHR and other VA specific systems and providing better alignment between work and workflows to prevent the need from navigating between systems for providers and pharmacists to do their jobs.

Spring 2023 Cube Update:

Over the last weekend of April a Cube Update to the system was conducted that included pharmacy enhancement Number 3b.

Enhancement Number 3b: Display Rx Dispensing Details in Power Orders

This enhancement updates the provider's view when a prescription is ordered to reflect how prescriptions are dispensed by the pharmacy to the patient. This change will bring more visibility to situations when a pharmacy is using a different tablet size, for example, to fill a prescription (e.g. Lisinopril 20 mg tablet x 1 tab prescription filled with Lisinopril 10 mg tablet, x 2 tabs).

Block 9 Updates:

In August 2023 the Block 9 system update is expected to include pharmacy enhancements Numbers 4 and 6. We will deliver both updates to VA in May to allow plenty of time for testing and validation.

Enhancement Number 4: Support mCDS Discontinue in Retail Med Manager

This enhancement will reduce the steps or number of clicks pharmacy staff need to take to discontinue duplicate prescriptions within the drug interaction checking (mCDS) alerts window.

Enhancement Number 6: Optional Pharmacist Verification for Pharmacy Technicians Refills

This enhancement will save time for pharmacists by removing pharmacist verification requirements for refills initiated by pharmacy technicians.

Block 10 Updates:

In February 2024 the Block 10 system update is expected to include pharmacy enhancements Numbers 5 and 7 from Task Order 52. Block 10 also is expected to include two updates from Task Order 31. We will deliver these to VA by December 2023 to allow plenty of time for testing and validation.

Enhancement Number 5: Enable Power Orders Renewal Action on Retail Med Manager Prescriptions

This enhancement will allow providers to easily renew and take other actions on outpatient pharmacy generated prescriptions for consistency with provider entered prescriptions.

Enhancement Number 7: Request Refills from Power Chart to Outpatient Pharmacy

This enhancement will allow providers to perform a “right click” refill action in Power Chart and transmit a refill to the pharmacy for processing.

Task Order 31: Three Drug Image

This enhancement will provide drug metadata (round, scored, color, drug ID, imprint) in outpatient pharmacy workflows so that a pharmacy user can accurately identify medications.

Task Order 31: Mobile Inventory Scanning

This enhancement will help monitor and control real-time inventory and reordering processes by assisting with inventory and reorder level updates through mobile scan-driven workflows during a single adjustment step.

Additional Actions:

The EHR’s pharmacy capability will continue to be reviewed for improvements. For example, we have received feedback from EHR users who are requesting the “complete” button in the medicine reconciliation workflow be renamed due to it causing confusion, so we are working with VA on a solution. Similarly, as additional feedback comes in from users we will prioritize addressing it.

The pharmacy enhancements, like our work to stabilize overall system performance and quickly fix issues like the Unknown Queue, is emblematic of our approach. When a concern is raised or an enhancement is needed, we put a team on it and get it done.

Opioids:

An important capability of the new EHR is the opioid advisor tool. The new EHR allows clinicians to simultaneously check data from 47 state Prescription Drug Monitoring Programs (PDMP) and Department of Defense facilities to prevent improper prescribing of controlled substances. Previously clinicians had to leave a patient’s record and access PDMP data through each state’s website with different passwords for each site. The opioid advisor tool has automatically alerted providers to avoid prescribing opioids to high-risk patients nearly 1,800 times since November 2020.

Closing:

As with our overall commitment to delivering VA a new EHR that exceeds expectations, pharmacy is no exception. We will continue to work with VA to make sure that enhancements which are forthcoming are delivered on or ahead of schedule, and we will continue to prioritize our work on pharmacy so that we are all confident veterans will receive the medications they need when needed. Thank you.

Appendix 1 – Table of Pharmacy Enhancements by Task Order

Type	Pharmacy Capability	Description	Client Validation Ready in Non-Prod	Current VA PROD Desktop Upgrade Timing
VA TO 52	#1: Toggle Prescription Synonym Visibility	Guide providers to order prescriptions (or supplies) based on what is preferred through the VA's formulary and more likely to be stocked at the local pharmacy. Intent is to help reduce re-work needed by pharmacists and/or providers to adjust prescriptions after initial order entry and contain costs.	Complete Nov 2022	Live 3/6 (Block 8 Code install) Block 9: Aug 2023
VA TO 52	#2: Optional Order Stop Date in Retail Med Manager	Keep ongoing medications for a patient on the active medication list so providers and pharmacists continue to have easier visibility to the medications even when a new prescription is needed.	Complete Nov 2022	Live with Block 8: Feb 2023 Block 9: Aug 2023
VA TO 52	#3A: Display Rx Legal Expiration Date in Orders	Visibility for providers when a prescription is no longer fillable (past legal expiration date), to help identify when a new prescription is needed.	Complete Nov 2022	Live with Block 8: Feb 2023 Block 9: Aug 2023
VA TO 52	#3b: Display Rx Dispensing Details in PowerOrders	Update the provider's view of prescriptions to reflect how prescriptions are dispensed by the pharmacy to the patient.	Complete Dec 2022	Live with April 2023 Cube Block 9: Aug 2023
VA TO 52	#4: Support mCDS Discontinue in Retail Med Manager	Reduce steps/clicks for pharmacy staff to discontinue duplicate prescriptions within the drug interaction checking (mCDS) alerts window.	Q2 2023	Block 9: Aug 2023
VA TO 52	#5: Enable PowerOrders Renewal Action on Retail Med Manager Prescriptions	Allow providers to easily Renew and take other actions on Outpatient Pharmacy-generated prescriptions for consistency with provider-entered prescriptions.	Q3 2023	Block 10: Feb 2024
VA TO 52	#6: Optional Pharmacist Verification for Pharm Tech Refills	Increase pharmacist efficiency (save pharmacist time) by removing pharmacist verification requirement for refill initiation entered by pharmacy technicians.	Q2 2023 Q3 2023	Block 9: Aug 2023 Block 10: Feb 2024
VA TO 52	#7: Request Refills from PowerChart to Outpatient Pharmacy	Provide better service to patients and more efficient by allowing nurses/physicians/other roles as appropriate to initiate a refill request to the pharmacy on behalf of the patient. For example, if the patient says 'I need to get that med refilled' during a clinic visit, the provider can send the refill request to the pharmacy while in the patient's chart, and potentially reduce the wait time for the patient once they arrive at the pharmacy following the visit.	Q4 2023	Block 10: Feb 2024

VA TO 52 Mod6	Override Address Validation	Provide the ability for the pharmacist to override the address validation status for an address that fails the United States Postal Service (USPS) validation.	Q4 2023	Block 10: Feb 2024
VA TO 31	E-Rx Monitor Filtering	Increase pharmacy efficiency by improving work queues used by pharmacy managing provider entered prescription actions	Complete Dec 2022	Live with Block 8: Feb 2023
VA TO 31	Weekly Multum Release	Increase release cadence for Multum content to move from monthly releases to release weekly, allowing for increased delivery of drug content as content is updated.	Complete Dec 2022	Live as of December 2022
VA TO 31	Three Drug Image	Enables use of additional drug image sources (e.g. white pill with N 25 imprint) and support up to three images in the Outpatient Pharmacy dispensing verification workflows to visually confirm the right drug is being dispensed.	Q3 2023	Block 10: Feb 2024
VA TO 31	Mobile Inventory Scanning	Provide mobile application for scanning inventory to generate a request/requisition for reordering supplies to increase efficiency of managing the inventory	Q3 2023	Block 10: Feb 2024