

**Department of Veterans Affairs
Veterans Health Administration**

Veterans Health Information Systems and Technology Architecture

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The Veterans Health Administration (VHA) has developed and implemented the Veterans Health Information Systems and Technology Architecture (VistA) to support the day-to-day operations of its hundreds of hospitals, clinics, and nursing homes across the country.

VistA is a comprehensive, integrated health care information system composed of numerous software modules. (see http://www.va.gov/vista_monograph/). The Computerized Patient Record System (CPRS) provides a graphical user interface to the information in VistA and pulls together all relevant patient data from different VistA modules. Together, VistA and CPRS form VHA's electronic health record (EHR).

CPRS organizes and presents all relevant data on a patient in a way that directly supports clinical decision-making. The comprehensive cover sheet displays timely, patient-centric information, including active problems, allergies, current medications, recent laboratory results, vital signs, hospitalization, and outpatient clinic history. This information is displayed immediately when a patient's record is selected and provides an accurate overview of the patient's current status before clinical interventions are ordered. CPRS capabilities include:

- A Real-Time Order Checking System that alerts clinicians during the ordering session that a possible problem could exist if the order is processed;
- A Notification System that immediately alerts clinicians about clinically significant events;
- A Patient Posting System, displayed on every CPRS screen that alerts clinicians to issues related specifically to the patient, including crisis notes, warning, adverse reactions, and advance directives;
- The Clinical Reminder System that allows caregivers to track and improve preventive health care for patients and ensure timely clinical interventions are initiated;
- Remote Data View functionality that allows clinicians to view a patient's medical history from other VA sites to ensure the clinician has access to all clinically-relevant data available at VA facilities.

VistA Imaging is also operational at all VA Medical Centers. VistA Imaging provides a multimedia, on-line patient record that integrates traditional medical chart information with medical images, including x-rays, pathology slides, video views, scanned documents, cardiology exam results, wound photos, dental images, and endoscopies.

The Bar Code Medication Administration (BCMA) application in VistA addresses the serious issue of inpatient medication errors by electronically validating and documenting medications for inpatients. It ensures that the patient receives the correct medication, in the correct dose, at the correct time, and

visually alerts staff when the proper parameters are not met.

VA has shared copies of the VistA software with other organizations in the public and private sector for many years in accordance with the Freedom of Information Act (FOIA). Over the years, the VistA system has been adopted by a number of health care organizations (including the Indian Health Service) that have tailored it to meet their particular needs. Others use VistA with relatively little modification, including the seven Oklahoma State Veterans Homes, several D.C. Department of Health clinics, and the LBJ Tropical Medical Center in American Samoa. West Virginia and other states have various pilot implementations of VistA about to get underway, and the system is being evaluated for use in several countries. In addition, VHA and the Centers for Medicare and Medicaid are currently collaborating on the development and release of "VistA-Office EHR" by July 2005 for use in individual and small group physician practices and in rural health care facilities.

For more information visit the following web sites -

VistA & Federal Agencies

- Veterans Affairs (VA) - http://www1.va.gov/vha_oi/
- VistA-Office EHR - www.cms.hhs.gov/quality/pfqi.asp
- Indian Health (RPMS) - www.ihs.gov/cio/rpms

Other VistA Resources

- WorldVistA Organization - www.worldvista.org
- VistA Hardhats - www.hardhats.org
- VistA Software Alliance - www.vistasoftware.org