

The After Visit Summary (AVS)

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VA Loma Linda Healthcare System

Outline

- Introduction
- Background
- AVS Development
- Software Features
- Initial Evaluation Plan
- Questions

Poll Question

In which area of expertise do you work?

- Clinical
- Information Technology
- Administrative
- Research
- Other

Background - Patient Retention of Clinical Information

- Patients forget 40-80% of information from healthcare providers¹
- What they do remember, they remember half incorrectly¹
- More information given, the less patients remember²
- Poor retention leads to poor adherence, medication errors, missed appointments and perceptions of poor communication

Background – Patient Engagement

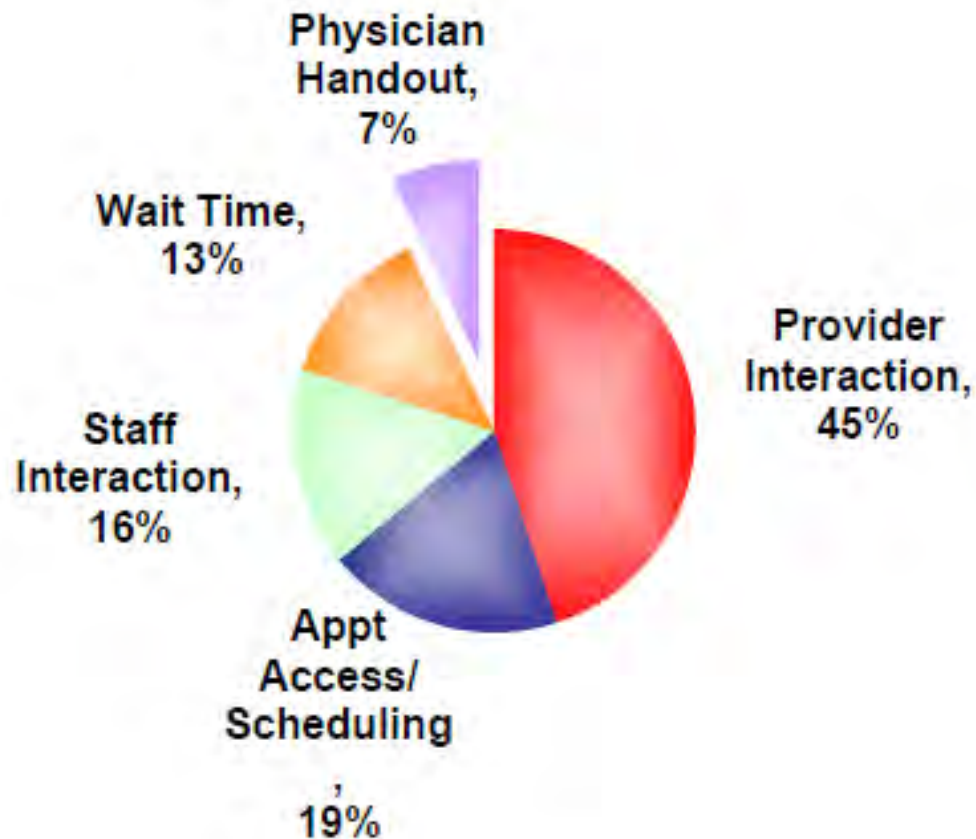
- Patients desire information about their care³
- Patients desire more information than they typically receive about their illness and their treatment plan³
- Combining oral and written information is better than oral or written only⁴
- Sharing electronic health record information on personal health records increases patient engagement⁵

Background – After Visit Summaries (AVS) and Personal Health Records (PHR)

- Why printed AVS and not just a PHR?
 - Printed after-visit summaries enhance patient trust and confidence in their physician³
 - Veterans have access to MyHealthVet, however 65% not registered⁶
 - Only 25% In-Person Authentication⁶
 - Experience at other sites with PHR and AVS
 - AVS third most frequently accessed information on PHR Group Health, Seattle⁷

Background – After Visit Summaries and Patient Satisfaction

- Kaiser Permanente found through regression analysis that AVS contributes to overall outpatient satisfaction⁸



Poll Question

- When you or your family have seen a physician, did you receive an after-visit-summary?
- Always
- Most of the time
- Sometimes
- Rarely
- Never

Background - Meaningful Use Criteria

- Centers for Medicare and Medicaid Services (CMS) criteria for physician/hospital reimbursement for implementing an electronic health record (EHR) ^{9, 10}
 - Use computerized order entry
 - Drug-drug and drug-allergy checks
 - Maintain up-to-date problem list
 - Generate and transmit prescriptions electronically
 - Maintain active medication list
 - Maintain active medication allergy list
 - Record key demographics
 - Record and chart changes in vital signs
 - Record smoking status for patients 13-years and older
 - Exchange key information with other systems
 - **At least one of 4 clinical decision support rules**
 - Report hospital quality measures to CMS/state
 - Electronic copies to patients on request
 - **Provide clinical summaries for patients for each office visit**
 - Protect electronic health information

Background - Meaningful Use ¹¹

- Objective
 - Provide clinical summaries for patients for each office visit
- Measure
 - Clinical summaries provided to patients for more than 50% of office visits within 3 days
- Additional parameters
 - May be provided through PHR, website, secure messaging, or printed copy

Background - Meaningful Use ¹¹

- Clinical Summary Content from CMS
 - Patient's name
 - Providers name, visit location and date and contact information
 - Updated medication list
 - Updated vitals, reason for visit
 - Procedures and instructions
 - Updated problem list
 - Upcoming appointments
 - Laboratory and test orders
 - Laboratory and other test results

Background - VA and Meaningful Use

- VA seeking meaningful use certification¹²
 - "We're going to try to get certified on everything for inpatient and outpatient," said Dr. Theresa Cullen, director of health informatics for the VHA.
 - "If you look at what's required in certification, all of it benefits patient care. Striving for meaningful use will help us deliver better care for the veterans."

AVS Development

Purpose of the After Visit Summary (AVS)

- Promote patient-centered, outpatient care
- Summarize medications, appointments, tests, patient education material and other instructions
- Enhance communication
- Engage patients in their care
- Improve recall of medical instructions
- Meets electronic health record meaningful use criteria

AVS Development Project Goals

- For outpatient visits
 - Provide patients with relevant information about their office visit in a clinical summary
 - Develop patient-friendly language and format
 - Minimize work for the provider by automatically populating AVS with data from VistA
 - Provider user options
 - Save, print and upload to VistA Imaging and MyHealthVet

AVS Development

- 2009 VHA Innovations Grant
- Requirements gathering through patient and clinician focus groups
- Contractor developed **software** framework
- VA Loma Linda Healthcare System (VALLHCS) IT developer refined software
- Pilot testing in VALLHCS clinics
- Close collaboration with Informatics Team and clinicians

AVS Development

- Clinician and Innovations input at VALLHCS
- Pharmacy Benefits Management (PBM) National Medication Reconciliation Workgroup
 - Add remote medications
 - Medication descriptions
- Region 1 Development Team
 - Changed from using a network service account to an application programming interface (API)
 - VistA service accounted changed to Application Proxy

AVS Features

- Web-based, launched from the CPRS toolbar
- Imports data VistA/CPRS, Remote Procedure Calls (RPC's)
- Clinical Context Object Workgroup (CCOW)
- Auto refresh and manual refresh button
- Print, store VistA Imaging as PDF, stub note in CPRS
- Integration with Krames-On-Demand Patient Education
- Optionally saves and locks changes between users

AVS Features

- Technical
 - Java/J2EE with web-based front end
 - RPC's through national software (VistALink)
 - No custom RPC's or MUMPS code
 - Small Delphi client for CCOW
 - Hosted at Denver Regional Data Center

AVS Features - AVS Workflow

- Provider
 - Completes orders
 - Completes encounter
- Data
 - Automatically uploaded to AVS
 - Auto-refresh every 3 minutes, manual refresh available
- Additional instructions
 - Free text instructions
 - Krames-on-Demand Education Sheets
- Completed AVS
 - Printed to Windows printer or Vista printer
 - Stub note created in CPRS
 - PDF copy uploaded to Vista Imaging

AVS Features - Launch

Vista CPRS in use by: Cprs,Resident (vista.loma-linda.med.va.gov)

File Edit View Action Options Tools Help

ZZTEST_BEA (OUTPATIENT) 000-00-0175 Jan 01,19...

Last 200 Signed Notes (Total: 4011)

- All unsigned notes for CPRS...
- Jan 07,13 MED/G...
- Dec 10,12 MED/G...
- Nov 13,12 MED/G...
- Oct 11,12 MEDIC...
- Oct 04,12 BEHAV/DE...
- Jul 24,12 CARDIO AN...
- All unsigned notes for CPRS...
- Nov 12,09 MEDIC...
- All signed notes
- Jun 11,13 CAC TEST...
- Jun 10,13 CBOC COP...
- Jun 06,13 CORRESP...
- Jun 06,13 MED/G...
- Jun 05,13 NURS/4N...
- Jun 05,13 NURS/4N...
- Jun 05,13 SURG/AT...
- Jun 04,13 PHARM/C...
- May 30,13 SURG/GE...
- May 30,13 GEC EXT...
- May 30,13 MED/F...
- May 28,13 MED/G...
- May 24,13 NEURO/C...
- May 23,13 CONSENT...
- May 20,13 NURS/4N...
- May 17,13 CONSENT, ... No Location ...
- May 17,13 NURS/1SE/RN NOTE, LL/...

Tools menu items:

- Vista Imaging/ADV Directive
- Consents (iMed)
- After Visit Summary
- Specialty Applications
- Micromedex
- Medical Library/Clinical Resources
- Patient Education
- Web Links/Guidelines
- Utilities
- Protocols
- CSI Supervisor Survey
- Bed Management System (BMS)
- Shift Handoff Tool
- CPRS_Letterhead
- Adverse Drug Event Reporting
- CMOPMedsTracking
- HCV Test Interpretation Table
- Secure Messaging
- Primary Care Almanac
- Language/Translator Services
- Clinical Privileges
- Policies and SOPs
- Calculator
- Graphing... Ctrl+G
- Lab Test Information...
- Options...
- Digital Signing Setup...

Right pane content:

Primary Care Team Unassigned

CLINIC

AV MED/MASTER TREATMEN...

AV MED/HEALTH RECOVERY ...

GIM/CLINIC NOTE (PDT)

PERMANENT MEDICINE NOTE

06, 2013@15:21 ENTRY DATE: JUN 06, 20

EN,HOA T EXP COSIGNER:

STATUS: COMPLETED

with the following medical

d type, without mentio

Infarction (ICD-9-CM 4

Homonymous bilateral field defects (ICD-

Asthma, unspecified type, without mentio

Launched from the CPRS Tools menu, the AVS uses CCOW, changing patients with CPRS, therefore requiring only one launch per clinic.

AVS Features - View of AVS at Launch

After: Visit Summary

File

After Visit Summary - Cjrs Physician (LOMA LINDA HCS)

TEST,PATIENT 000-00-1234 Jan 1, 1970 (43) Last Refreshed Sep 22, 13@12:58:27

Encounter: [L/GIM/BYRNE/MODULE 4/](#) Refresh Edit Instructions Edit AVS Options Kram Note Print PDF

After Visit Summary

TEST,PATIENT
Visit date: 09/18/2013
Date generated: 09/22/2013 12:58
LOMA LINDA HCS



Department of Veterans Affairs

Today's Visit

Clinics Visited

- 13:30 - Dr. Byrne, Module 4
- 15:00 - LI/Surg/Pod/Waound Limb/Wed

Providers PROVIDER,JANE

You Were Diagnosed With

- Essential hypertension
- Obesity
- Dyslipidemia
- Cholelithiasis without obstruction
- Smoker
- Coronary arteriosclerosis
- Ankylosing spondylitis
- Hypersomnia with sleep apnea
- Dyspnea
- Chronic obstructive lung disease
- Diabetes mellitus type 2
- Gastroesophageal Reflux Disease

Vitals as of This Visit

- Blood Pressure: 128/54
- Body Mass Index: 34.58
- Pain: 7
- Pulse Oximetry: 96 (Room Air)
- Pulse: 66
- Respirations: 18
- Temperature: 98.1 F
- Weight: 233.7 lb

Immunizations • FLU,3 YRS

New Orders From This Visit **Lab Tests**

Please report to the lab for the following blood tests on the date listed for each test.

AVS Features – Visit Selection

After Visit Summary

File

After Visit Summary - Physician Cprs (VICTORVILLE CBOC)

TEST,PATIENT 000-00-1234 Jan 1, 1970 (43) Last Refreshed Nov 05, 13@11:02:52

Encounter: LL/GIM/BYRNE/MODULE 4//

- LL/GIM/BYRNE/MODULE 4//
10/30/2013@13:00 - CHECKED OUT
- LL/IMMUNIZATION - PATIENT
10/25/2013@06:39 - CHECKED OUT
- LL/MODULE 4/PACT/TELEPHONE
10/24/2013@11:00 - CHECKED OUT
- RECALL (F/U) ZZ/LL/SURG/ EYE RTNS
10/18/2013@00:00 -

Date generated: 11/05/2013 11:02
VICTORVILLE CBOC

Department of Veterans Affairs

The current visit is automatically selected, but other encounters may be selected from a drop-down of recent visits.

Today's Visit

Clinics Visited	13:00 - Dr. Byrne, Module 4
Providers	BYRNE,JOHN M
You Were Diagnosed With	<ul style="list-style-type: none">Diabetes mellitusDyslipidemiaObesityChronic low back painEssential hypertensionThrombocytopenic disorderHearing lossBenign prostatic hyperplasiaCholelithiasis without obstructionUrolithiasisGlaucomaAge related macular degenerationDiverticular diseaseHistory of squamous cell carcinoma of skin
Vitals as of This Visit	<ul style="list-style-type: none">Blood Pressure: 122/74Body Mass Index: 30.93Pain: 0Pulse Oximetry: 96 (Room Air)Pulse: 68Respirations: 18Temperature: 98.1 FWeight: 203 lb
New Orders	None

AVS Features – Header

After Visit Summary

File


After Visit Summary – Cprs Physician (LOMA LINDA HCS)

TEST,PATIENT 000-00-1234 Jan 1, 1970 (43) Last Refreshed Sep 22, 13@13:41:26

Encounter: LL/GIM/BYRNE/MODULE 4// Refresh Edit Instructions Edit AVS Options Krames Note Print PDF

After Visit Summary

TEST,PATIENT
Visit date: 09/18/2013
Date generated: 09/22/2013 13:41
LOMA LINDA HCS



Department of Veterans Affairs

The header displays the patient name, visit date, date the AVS was generated, and the facility name.

Today's Visit

Clinics Visited

- 13:30 - Dr. Byrne, Module 4
- 15:00 - LI/Surg/Pod/Wound Limb/Wed

Providers PROVIDER,JANE

You Were Diagnosed With

- Essential hypertension
- Obesity
- Dyslipidemia
- Cholelithiasis without obstruction
- Smoker
- Coronary arteriosclerosis
- Ankylosing spondylitis
- Hypersomnia with sleep apnea
- Dyspnea
- Chronic obstructive lung disease
- Diabetes mellitus type 2
- Gastroesophageal Reflux Disease

Vitals as of This Visit

- Blood Pressure: 128/54
- Body Mass Index: 34.58
- Pain: 7
- Pulse Oximetry: 96 (Room Air)
- Pulse: 66
- Respirations: 18
- Temperature: 98.1 F
- Weight: 233.7 lb

Immunizations • FLU,3 YRS

AVS Features - Data from VistA/CPRS

After Visit Summary
TEST,PATIENT
Visit date: 09/18/2013
Date generated: 09/22/2013 12:58
LOMA LINDA HCS

Department of Veterans Affairs

Today's Visit

Clinics Visited

- 13:30 - Dr. Byrne, Module 4
- 15:00 - LI/Surg/Pod/Wound Limb/Wed

Providers PROVIDER,JANE

You Were Diagnosed With

- Essential hypertension
- Obesity
- Dyslipidemia
- Cholelithiasis without obstruction
- Smoker
- Coronary arteriosclerosis
- Ankylosing spondylitis
- Hypersomnia with sleep apnea
- Dyspnea
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- Blood Pressure: 128/54
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- Pulse Oximetry: 96 (Room Air)
- Pulse: 66
- Respirations: 18
- Temperature: 98.1 F
- Weight: 233.7 lb

Immunizations • FLU,3 YRS

New Orders From This Visit **Lab Tests**

Please report to the lab for the following blood tests on the date listed for each test:

Visit data and provider information.

Diagnoses entered on the CPRS encounter form.

Vital signs associated with the visit in CPRS.

AVS Features - Data from VistA/CPRS

The screenshot shows the 'After Visit Summary' window for a patient named TEST,PATIENT (ID: 000-00-1234, DOB: Jan 1, 1970). The interface includes a menu bar (File), a toolbar with options like Refresh, Edit Instructions, Edit AVS, Options, Krames, Note, Print, and PDF, and a main content area with several sections:

- Immunizations**: PNEUMOCOCCAL
- New Orders From This Visit**: A callout box states 'Orders for consultations and imaging are also displayed if available.'
- Lab Tests**: A callout box states 'Lab orders with scheduled date.' The section includes a note: 'Please report to the lab for the following blood tests on the date listed for each test:' and lists tests with scheduled dates:
 - 09/18/2013: Occult Blood (Fit) Stool Feces
 - 03/17/2014: Basic Metabolic Panel (Chem 7) Blood Serum, Hemoglobin A1c (Lab) Blood, Lipid Profile Blood Serum, Hepatic Function Panel Blood Serum
- Medications**: A callout box states 'New medication orders and changes in medications are displayed here.' The section includes a note: 'Note: This section **only** lists **changes** to your medication regimen. Please see your complete medication list under **My Ongoing Care** below.' and lists medications:
 - Mirtazapine Tab 15mg
 - Finasteride Tab 5mg
 - Zolpidem Tab 5mg
- Other Orders**: A callout box states 'Text orders are included for such things as return visits, immunizations, etc.' and lists:
 - Pneumovax Text Order
 - Return To Clinic In 6 Months With Labs
 - Return To Clinic In 6 Months

AVS Features - Data from VistA/CPRS

After Visit Summary

File

After Visit Summary - Cprs Physician (LOMA LINDA HCS)

TEST,PATIENT 000-00-1234 Jan 1, 1970 (43) Last Refreshed Sep 20, 13

Encounter: LL/SURG/ORTHO/SHOOK/RT/TH Refresh Edit Instructions Edit AVS Options Krames Note Print

Upcoming Appointments Appointments in the next 3 months:

10/29/2013
13:30 - Ll/Surg/Ortho/Rtn

Instructions None

My Ongoing Care

Primary Care RATUSZYNSKI, MARK CHESTER

Upcoming appointments within the next three months.

AVS Features - Data from VistA/CPRS

After Visit Summary

File

After Visit Summary - Physician Cprs (VICTORVILLE CB0C)

TEST,PATIENT 000-00-1234 Jan 1, 1970 (43) Last Refreshed Nov 06, 13@08:07:07

Encounter: LLRED/MODULE 5/LVN Refresh Edit Instructions Edit AVS Options Krames Note Print PDF

My Ongoing Care

Primary Care Provider BERRIMAN,DIANE JO
MOD 5 - PACT TEAM C

Allergies (Reactions)

- Citalopram (Sexual Dysfunction)
- Sertraline (Abnormal Sexual Function, Increased Body Temperature)
- Tramadol (Itching,Wateri)

My Current VA Medications

The medications listed below were reviewed with you by your provider and is provided to you as an updated list of medications. Please remember to inform your provider of any medication changes or discrepancies that you note. Otherwise, please continue these medications as prescribed.

Albuterol 90mcg (Hfa) 200d Oral Inhl
INHALE 2 PUFFS BY MOUTH EVERY 4-6 HOURS FOR BREATHING (REPLACES LEVALBUTEROL INHALER)
Refills: 3 Last Filled: August 25, 13 Expires: June 06, 14

Artificial Tears Polyvinyl Alcohol
INSTILL 2 DROPS IN BOTH EYES TWICE A DAY AS NEEDED
Refills: 8 Last Filled: September 09, 13 Expires: June 06, 14

Chlorhexidine Gluconate 0.12% Mouthwash
USE ONE-HALF OUNCE 0.12% BY MOUTH TWICE A DAY AFTER MEALS FOR PERIODONTAL DISEASE ** SWISH FOR 1 MINUTE AND SPIT ** DO NOT EAT/CHEW FOR 30 MINUTES AFTER USING
Refills: 5 Last Filled: August 30, 13 Expires: June 06, 14

Gabapentin 300mg Cap
TAKE THREE CAPSULES BY MOUTH TWICE A DAY
Refills: 6 Last Filled: November 08, 13 Expires: June 06, 14
Description: capsule, yellow;white, imprinted with APO;113

Hydrocodone 5/Acetaminophen 500mg Tab
TAKE 2 TABLETS BY MOUTH THREE TIMES A DAY FOR PAIN. **DO NOT TAKE MORE THAN 4000MG OF ACETAMINOPHEN PER DAY**
Refills: 0 Last Filled: November 23, 13 Expires: December 06, 13
Description: oval, white, imprinted with M357

Lisinopril 5mg Tab

Primary Care Provider and Team

Patient's allergies and adverse reactions.

Updated medication list with number of refills, last fill, expiration, and description.

Physical descriptions of medications are obtained from the VA's Medication Image Library (MIL).

AVS Features - Data from VistA/CPRS

Remote Medications

This patient has medications from other VA facilities. Please select the medications from the list below that the patient is currently taking.

<input type="checkbox"/>	Name	Sig	Refills	Expiration Date	Last Filled	Facility	Provider
<input checked="" type="checkbox"/>	Lipitor	10 MG BY MOUTH DAILY	0	Jan 1, 14	Nov 1, 13	Cleveland VAMC	Physician,Jane
<input type="checkbox"/>	Nexium	20 MG BY MOUTH ONCE DAILY	0	Dec 15, 14	Oct 15, 13	West Palm Beac...	Doc,John Q

If the patient has remote medications these are displayed in a pop-up dialog and the provider selects those medications that the patient is taking.

Continue

AVS Features - Data from VistA/CPRS

The screenshot shows a web browser window titled "After Visit Summary" for a patient named TEST, PATIENT 000-00-1234, born Jan 1, 1970 (43). The window displays a list of medications under three categories: "My Non-VA Medications", "My Medications From Other VAs", and "Medications You Are Not Taking".

My Non-VA Medications

- Aspirin (Non-Enteric Coated) Tab, Chewable 81MG DAILY
- Minerals/Multivitamins Cap, Oral 1 CAPSULE DAILY
- Ascorbic Acid Tab 1000MG DAILY
- Vitamin E Cap, Oral 400UNT DAILY
- Vitamin B Complex Cap, Oral 1 CAPSULE DAILY
- Docosahexanoic Acid/E Cap, Oral 1000MG DAILY

My Medications From Other VAs

Medications You Are Taking

- Lipitor**
10 MG BY MOUTH DAILY
Refills: 0 Last Filled: Nov 1, 13 Expires: Jan 1, 14
Facility: Cleveland VAMC Provider: Physician, Jane
Description: elliptical, white, imprinted with PD 155, 10

Medications You Are Not Taking

You have stated that you no longer take the following medications prescribed at other VA facilities. Please remember to discuss each of these medications with your VA providers at these facilities.

- Nexium**
20 MG BY MOUTH ONCE DAILY
Refills: 0 Last Filled: Oct 15, 13 Expires: Dec 15, 14
Facility: West Palm Beach VAMC Provider: Doc, John Q
Description: purple, imprinted with 20 mg

Callouts in yellow boxes provide additional context:

- "Non-VA medications are displayed in a separate section." (points to the first list)
- "Remote medications that the patient is currently taking." (points to the Lipitor entry)
- "Remote medications that the patient is not currently taking are displayed along with a disclaimer." (points to the Nexium entry)

At the bottom of the window, a disclaimer reads: "This information is meant to provide a summary of your appointment with your health care provider. If you have any"

AVS Features - Footer

After Visit Summary

File

After Visit Summary - Cprs Physician (LOMA LINDA HCS)

TEST,PATIENT 000-00-1234 Jan 1, 1970 (43) *Last Refreshed Sep 20, 13@13:52:11*

Encounter: LL/SURG/POD/WOUND LIMB/WED Refresh Edit Instructions Edit AVS Options Krames Note Print PDF

Simvastatin 80mg Tab
TAKE ONE-HALF TABLET (=40MG) BY MOUTH AT BEDTIME FOR CHOLESTEROL **NOTE THE STRENGTH CHANGED
Refills: 2 Last Filled: October 13, 13 Expires: September 19, 14

Sulindac 200mg Tab
TAKE ONE TABLET BY MOUTH TWICE A DAY WITH FOOD
Refills: 1 Last Filled: August 29, 13 Expires: March 01, 14

Tape, Micropore 1in 3m #1530-1
USE TAPE AS DIRECTED
Refills: 3 Last Filled: September 04, 13 Expires: September 05, 14

Urea 20% Crm 90gm
APPLY SMALL AMOUNT TOPICALLY AS DIRECTED -- APPLY TO CALLUS TWICE A DAY
Refills: 1 Last Filled: April 27, 13 Expires: January 08, 14

Footer section, customizable in the administration interface, provides contact information and other instructions for the patient.

This information is meant to provide a summary of your appointment with your health care provider. If you have any questions about your care including test results, medications, diagnoses or other concerns, please contact your health care provider. Please bring this form to your next visit as a record of your medications and alert your provider to any changes in your medications.

To contact your primary care provider, please call 909-825-8084 or 1-800-741-8387 and follow the prompts to the Module where your primary care provider is located. To refill a prescription, please call 909-777-3259 or visit www.myhealth.va.gov. For care on evenings and weekends, please call 24 hour Telephone Care at 1-877-252-4866.

Access health resources. Track your health. Refill VA prescriptions. Visit www.myhealth.va.gov! Ask your health care team about in-person authentication and begin ordering medications and viewing appointments through MyHealtheVet. After completing in-person authentication, click on "Secure Messaging" in MyHealtheVet and select "I would like to opt in to secure messaging" in order to send email messages to your providers.

VA LOMA LINDA HEALTHCARE SYSTEM

AVS Features - Instructions

The screenshot shows the 'After Visit Summary' application window. The title bar reads 'After Visit Summary'. The main content area is titled 'After Visit Summary - Cprn Physician (LOMA LINDA HCS)'. A yellow callout bubble points to the 'Edit Instructions' button in the top toolbar, with the text: 'Click the "Edit Instructions" button to launch the text editor.' Below the main content, a 'Patient Instructions' text editor window is open. The text editor contains the text: 'Check your blood sugar 3 times weekly and record the readings in the diabetes record book provided.' A second yellow callout bubble points to the text editor with the text: 'Text editor for free text entry for patient instructions.' The background interface shows various sections: 'TEST, PATIENT', 'Today's Visit', 'Clinics Visited', 'Providers', 'You Were Diagnosed With', 'Vitals as of This Visit' (listing Pain: 7, Pulse, Temperature: 98.1 F, Weight: 233.7 lb), 'New Orders From This Visit', and 'Important Notes'.

AVS Features - Instructions

Important Notes

Upcoming
Appointments

Custom text entered by the provider appear in the Instruction section.

Instructions

Check your blood sugar 3 times weekly and record the readings in the diabetes record book provided.

My Ongoing Care

AVS Features - Editor

The screenshot shows the 'After Visit Summary' application window. At the top, it displays 'After Visit Summary - Cprs Physician (LOMA LINDA HCS)' and patient information: 'TEST,PATIENT 000-00-1234 Jan 1, 1970 (43)'. A toolbar includes buttons for 'Refresh', 'Edit Instructions', 'Edit AVS', 'Options', 'Kframes', 'Note', 'Print', and 'PDF'. A callout bubble points to the 'Edit AVS' button with the text: 'Click the "Edit AVS" button to launch the AVS Editor to modify the contents of the AVS.'

The main content area shows the 'Department of Veterans Affairs' logo and patient details: 'TEST,PATIENT', 'Visit date: 09/18/2013', 'Date generated: 09/20/2013 14:27', and 'LOMA LINDA HCS'. Below this is a section titled 'Today's Visit' with a sub-section 'Clinics Vi'. A 'Provider' section is partially visible. A 'You Were Diagnosed With' section lists several medical conditions:

- Essential hypertension (SCT 5022000) - Unspecified essential hypertension
- Obesity (SCT 41490001) - Obesity, unspecified
- Dyslipidemia (SCT 267036007) - Unspecified
- Cholelithiasis (SCT 70342000) - Unspecified
- Smoker (SCT 77176002) - Tobacco use disorder, unspecified use
- Coronary arteriosclerosis (SCT 53741008) - Coronary atherosclerosis of unspecified type of vessel, native or graft
- Ankylosing spondylitis (SCT 5022000)
- Hypersomnia with sleep apnea (SCT 267036005) - Hypersomnia with sleep apnea, unspecified
- Other dyspnea (SCT 267036007) - Other dyspnea, unspecified
- Chronic obstructive pulmonary disease (SCT 267036005) - Chronic airway obstruction, not elsewhere classified
- Diabetes mellitus type 2 (SCT 44054006) - Diabetes mellitus without mention of complication, type ii or unspecified type, not stated as uncontrolled
- Gastroesophageal Reflux Disease (SCT 235595009) - Esophageal reflux

A 'Custom AVS Edits' dialog box is open, displaying a warning: 'Please note that if the AVS is manually refreshed this will overwrite any custom edits that are made. Auto-refresh will also be disabled for the current patient encounter if edits are made.' The dialog has 'OK' and 'Cancel' buttons. A callout bubble points to the dialog with the text: 'This warning about refreshing the AVS is displayed prior to opening the AVS Editor.'

AVS Features - Editor

The screenshot displays the AVS Editor window. The title bar reads "After Visit Summary". The main window contains a menu bar with "File", a patient information section with "TEST, PATIENT" and "Encounter:", and a central editing area. The editing area has a toolbar with various icons and a text area containing the following text:

New Orders From This Visit

Lab Tests

Please report to the lab for the following blood tests on the date listed for each test:

01/16/2014

- Basic Metabolic Panel (Chem 7) Blood Serum
- Hemoglobin A1c (Lab) Blood
- Lipid Profile Blood Serum
- Hepatic Function Panel Blood Serum

Other Orders

- Return To Clinic In 4 Months (Note: do lab tests prior to [visit])

Important Notes

Message

At the bottom of the editor are "Cancel" and "Update" buttons. A yellow callout bubble points to the text in the "Other Orders" section, containing the text: "Any part of the content of the AVS can be modified or deleted." The status bar at the bottom of the window shows "235595009) - Esophageal reflux".

AVS Features - Clinical Services Information

After Visit Summary
TEST,PATIENT
Visit date: 09/18/2013
Date generated: 09/22/2013 11:52
LOMA LINDA HCS

Today's Visit

Clinical Services

Diabetes mellitus type 2

Vitals

This Visit

- Body Mass Index: 34.58
- Pain: 7
- Pulse Oximetry: 96 (Room Air)
- Pulse: 66
- Respirations: 18
- Temperature: 98.1 F
- Weight: 233.7 lb

New Orders

From This Visit: None

Important Notes

Upcoming Appointments: Appointments in the next 3 months:

Include all Clinical Services information in printouts
 Select Clinical Services for inclusion in printouts

Prevent other users from editing this sheet

AVS Features-Clinical Services Information

After Visit Summary

File

AB... LOMA LINDA HC5J

Last Refreshed Date: 22/12/2011 11:52:32

Webcheck Edit Instructors Edit AVS Update Notices Note Print Help

Specific clinical services may be selected for inclusion in the AVS printout.

Clinical Services

Select clinical services from the list below to include with AVS printout.

<input type="checkbox"/>	Name	Location	Operating Hours
<input type="checkbox"/>	Audiology	Building 30	0800-1630
<input type="checkbox"/>	Bariatric Surgery	3 Northwest	0800-1630
<input checked="" type="checkbox"/>	Behavioral Medicine	Second Floor	0800-1630
<input checked="" type="checkbox"/>	Cardiology	4th Floor	0800-1630
<input type="checkbox"/>	Community Based Clinic, Blythe	1273 Hobson Way, Blythe, CA 92225	0800-1630
<input type="checkbox"/>	Community Based Clinic, Corona	800 MAGNOLIA, Corona, CA 92879	0800-1700 M-T...
<input type="checkbox"/>	Community Based Clinic, Murrieta	28078 Baxter Rd., Suite 540, Murrieta,...	0800-1700 M-T...
<input type="checkbox"/>	Community Based Clinic, Palm Desert	41-990 Cook St, Bldg F Ste 1004, Palm...	0800-1700 M-T...
<input type="checkbox"/>	Community Based Clinic, Rancho Cucamonga	8599 Haven Ave., Suite 102, Rancho Cu...	0800-1700 M-T...
<input type="checkbox"/>	Community Based Clinic, Victorville	12138 Industrial Boulevard, Suite 120	0800-1700 M-T...
<input type="checkbox"/>	Dental Service	2F-10, Second Floor	0800-1630
<input checked="" type="checkbox"/>	Dermatology	3 Northeast	0800-1630
<input type="checkbox"/>	Ears, Nose and Throat	3 Northwest	0800-1630
<input type="checkbox"/>	Endocrine Clinic	3 Northeast	0800-1630
<input type="checkbox"/>	Eye Clinic (Ophthalmology)	First Floor, Building 51	0800-1630
<input type="checkbox"/>	General Surgery	3 Northwest	0800-1630

Cancel OK

After
TEST, PATIENT
Visit date: 09/1
Date generated:
LOMA LINDA HC5J

Today's
Clinics Visit

Providers

You Were Diagnosed With

Vitals as of This Visit

New Orders From This Visit

Important Notes
Upcoming Appointments Appointments in the next 3 months:

AVS Features - Clinical Services Information

The screenshot shows a software window titled "After Visit Summary" with a "PDF Viewer" tab. The document content is titled "Additional Information - LOMA LINDA HCS" and lists the following services:

Clinical Services	Behavioral Medicine	Cardiology	Dermatology
	Location: Second Floor	Location: 4th Floor	Location: 3 Northeast
	Hours of Operation: 0800-1630	Hours of Operation: 0800-1630	Hours of Operation: 0800-1630
	Phone: 909-583-6907	Phone: 909-583-6097	Phone: 909-825-7084, ext 5379

At the bottom of the window, there are buttons for "Quick Print", "Print", and "Close". A "TEST" button is visible on the left side of the PDF viewer interface.

AVS Features - Font Size

File

After Visit Summary - Cprc Physician (LOMA LINDA HCS)

TEST, PATIENT 000-00-1234 Jan 1, 1970 (43) Last Refreshed Sep 20, 13@14:13:36

Encounter: LL/SURG/POD/WOUND LIMB/WED Refresh Edit Instructions Edit AVS Options Frames Note Print PDF

After Visit Summary
TEST, PATIENT
Visit date:
Date generated: 09/20/2013 14:13
LOMA LINDA HCS

The AVS text size can be increased for visually impaired patients.

Normal
 Large
Very Large

Font Size
Lab Results
Clinical Charts
Sections Displayed
Clinical Service Descriptions
Prevent other users from editing this sheet

Today's Visit

Clinics Visited

- 13:30 - Dr. Byrne, Module 4
- 15:00 - LI/Surg/Pod/Wound Limb/Wed

Providers PROVIDER, JANE

You Were Diagnosed With

- Ulcer of big toe (SCT 308740002) - Ulcer of other part of foot
- Diabetes mellitus type 2 (SCT 44054006) - Diabetes mellitus without mention of complication, type ii or unspecified type, not stated as uncontrolled

Vitals as of This Visit

- Blood Pressure: 128/54
- Body Mass Index: 34.58
- Pain: 7
- Pulse Oximetry: 96 (Room Air)
- Pulse: 66
- Respirations: 18
- Temperature: 98.1 F
- Weight: 233.7 lb

New Orders From None

AVS Features - Lab Results

The screenshot shows the 'After Visit Summary' application window. The title bar reads 'After Visit Summary'. Below the title bar, the patient information is displayed: 'TEST,PATIENT 000-00-1234 Jan 1, 1970 (43)'. The last refresh time is 'Last Refreshed Sep 22, 13@11:21:57'. The encounter is 'LL/GIM/BYRNE/MODULE 4//'. The interface includes a 'File' menu, a 'Refresh' button, and buttons for 'Edit Instructions', 'Edit AVS', and 'Options'. The 'Options' menu is open, showing 'Lab Results' selected. A callout box points to the 'Lab Results' option with the text: 'Recent lab results can be included in the AVS printout.' The main content area displays the 'After Visit Summary' for 'TEST,PATIENT' with a visit date of '09/18'. The summary includes sections for 'Today's Clinics Visited', 'Providers', and 'You Were Diagnosed With'.

After Visit Summary
TEST,PATIENT
Visit date: 09/18
Date generated:
LOMA LINDA H

Today's

Clinics Visited

- 13:30 - Dr. Byrne, Module 4
- 15:00 - LI/Surg/Pod/Wound Limb/Wed

Providers PROVIDER,JANE

You Were Diagnosed With

- Essential hypertension
- Obesity
- Dyslipidemia
- Ankylosing spondylitis
- Hypersomnia with sleep apnea
- Dyspnea

AVS Features - Lab Results

After Visit Summary

After Visit Summary - Cprs Physician (LOMA LINDA HCS)

TEST, PATIENT 000-00-1234 Jan 1, 1970 (43) Last Refreshed Sep 22, 13@11:21:57

Encounter: LL/GIM/BYRNE/MODULE 4// Refresh Edit Instructions Edit AVS Options Frames Note Print PDF

Recent Lab Results

Report Released Date/Time: Sep 18, 2013@04:36
 Provider: BYRNE, JOHN M
 Specimen: BLOOD. MAN 0517 223
 Specimen Collection Date: Sep 17, 2013@10:00

Test name	Result	units	Ref. range	Site Code
HEMOGLOBIN A1C (LAB)	5.9	%	4.2 - 5.9	[605]

Eval: SUGGESTED INTERPRETATION GLYCOSYLATED HEMOGLOBIN RESULTS:
 Eval: HGB A1C OF <6% CONSISTENT WITH NORMAL GLYCEMIA
 Eval: HGB A1C OF 6-8% SUGGESTS ACCEPTABLE GLUCOSE CONTROL
 Eval: HGB A1C OF 9-10% SUGGESTS FAIR GLUCOSE CONTROL
 Eval: HGB A1C OF OVER 10% SUGGESTS POOR GLUCOSE CONTROL
 Eval: RESULTS ADVERSELY AFFECTED BY HGB F >15%, HGB'S D AND E,
 Eval: AND HOMOZYGOUS HGBS S AND C.

Report Released Date/Time: Sep 17, 2013@16:58
 Provider: BYRNE, JOHN M
 Specimen: SERUM. DM 0517 612
 Specimen Collection Date: Sep 17, 2013@10:00

Test name	Result	units	Ref. range	Site Code
SODIUM	137	mMol/L	136 - 144	[605]
POTASSIUM	4.1	mMol/L	3.6 - 5.1	[605]
CHLORIDE	99 L	mMol/L	101 - 111	[605]
CO2	30.0	mMol/L	22 - 32	[605]
UREA NITROGEN	20	mg/dL	8 - 20	[605]
CREATININE	1.08	mg/dL	.64 - 1.27	[605]
eGFR	>60	mL/min	Ref: >=60	[605]

Eval: eGFR is calculated by 4-variable MDRD equation of Levey modified for
 Eval: standardized creatinine. Stable creatinine presumed - ignore eGFR in
 Eval: dialysis patients. Interpret with caution in patients with acute renal
 Eval: failure. Units for eGFR are in mL/min/1.73 square meters.

GLUCOSE	80	mg/dL	74 - 118	[605]
CALCIUM	9.4	mg/dL	8.8 - 10.3	[605]
PROTEIN TOTAL	6.6	gm/dL	6.1 - 7.9	[605]
ALBUMIN	4.1	gm/dL	3.5 - 4.9	[605]
TOT. BILIRUBIN	0.8	mg/dL	0.2 - 1.2	[605]
DIR. BILIRUBIN	0.10	mg/dL	0.1 - 0.8	[605]
ALKALINE PHOSPHATASE	69	IU/L	32 - 91	[605]
ALT	19	IU/L	17 - 63	[605]

Eval: New sexed reference ranges in effect as of 6/7/13.

AST	24	IU/L	16 - 41	[605]
CHOLESTEROL	138	mg/dL	0 - 200	[605]

Eval: BORDERLINE ELEVATED: 201-239 mg/dL
 Eval: ELEVATED: OVER 240 mg/dL

TRIGLYCERIDES	208 H	mg/dL	0 - 150	[605]
---------------	-------	-------	---------	-------

Eval:
 Eval: BORDERLINE: 150-199 mg/dL

AVS Features - Clinical Charts

The screenshot displays the 'After Visit Summary' window for a patient named TEST,PATIENT. The interface includes a menu bar with 'File', a title bar with 'After Visit Summary - Cprs Physician (LOMA LINDA HCS)', and a toolbar with options like 'Refresh', 'Edit Instructions', 'Edit AVS', 'Options', 'Krames', 'Note', 'Print', and 'PDF'. A 'Clinical Charts' menu is open, listing various lab and vital parameters with checkboxes for selection. A yellow callout box points to the 'Clinical Charts' menu item.

After Visit Summary
TEST,PATIENT
Visit date: 09/18/2013
Date generated: 09/22/2013 11:27
Last Refreshed Sep 22, 13@11:27:59

Encounter: LL/GIM/BYRNE/MODULE 4//

Clinical charts for selected labs and vitals are available for graphical display and trending.

Options:

- Font Size
- Lab Results
- Clinical Charts**
- Sections Displayed
- Clinical Service Descriptions
- Prevent other users from editing this sheet

Do Not Display

- Display All
- BMI
- BP
- Cholesterol
- Creatinine
- eGFR
- HbA1C
- HDL
- HGB
- LDL
- Platelets
- Pulse
- Triglycerides
- Weight

You Were Diagnosed With

- Essential hypertension
- Obesity
- Dyslipidemia
- Cholelithiasis without obstruction
- Smoker
- Coronary arteriosclerosis

Vitals as of This Visit

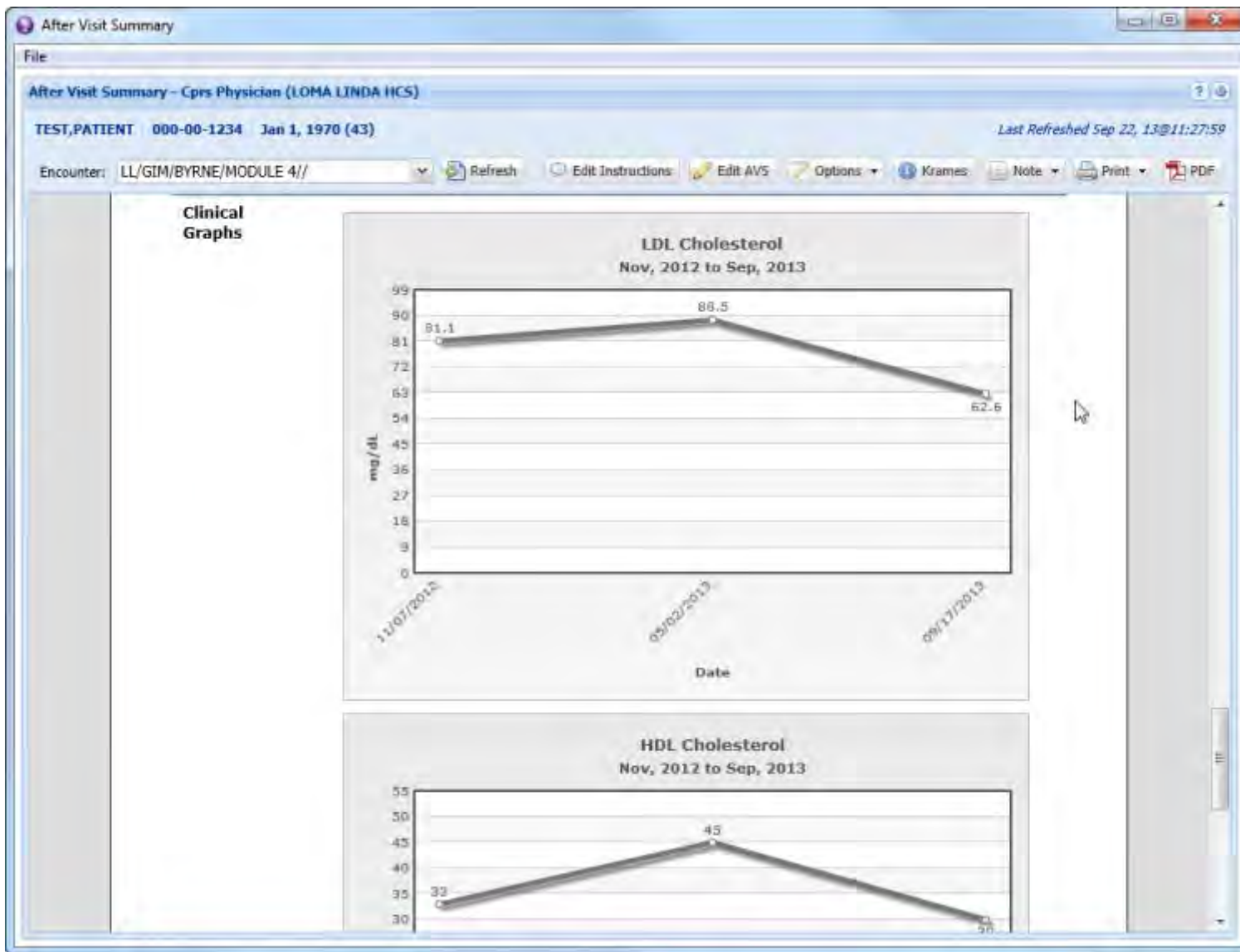
- Blood Pressure: 128/54
- Body Mass Index: 34.58
- Pain: 7
- Pulse Oximetry: 96 (Room Air)

Immunizations • FLU,3 YRS

New Orders From This Visit **Lab Tests**

Please report to the lab for the following blood tests on the date listed for each test:

AVS Features - Clinical Charts



AVS Features - Sections Displayed

The screenshot shows the 'After Visit Summary' application window. The title bar reads 'After Visit Summary'. The main content area displays patient information: 'TEST,PATIENT 000-00-1234 Jan 1, 1970 (43)'. Below this, there are buttons for 'Refresh', 'Edit Instructions', 'Edit AVS', and an 'Options' dropdown menu. The 'Options' menu is open, showing a list of sections with checkboxes: 'Clincs Visited', 'Providers', 'Diagnoses', 'Vitals', 'Immunizations', 'Orders', 'Appointments', 'Instructions', 'Primary Care Provider', 'Allergies', 'Medications', 'Clinical Charts', and 'Lab Results'. A yellow callout box points to the 'Sections Displayed' option in the menu, containing the text: 'The user can select the sections to display.' The main content area shows a section titled 'After Visit Summary' with patient details and a list of 'Diagnoses' including 'Ulcer or big toe (SCT 308740002) - L' and 'Diabetes type 2 (SCT 44054006) - L'. Other sections include 'Vitals as of This Visit' with values for Blood Pressure, Body Mass Index, Pain, and Pulse Oximetry. The 'New Orders From This Visit' section shows 'None'. The 'Important Notes' section is partially visible at the bottom.

AVS Features - Integration with Krames-on-Demand

The screenshot displays the AVS software interface. At the top, the window title is "After Visit Summary". Below the title bar, there is a "File" menu and a search bar. The main content area is divided into two panes: "Search Results" on the left and "Content" on the right. The "Search Results" pane shows a list of search results for diabetes-related topics, including "Before You Start Your Diabetes Ex...", "Diabetes and Alcohol Consumption", "Diabetes and Heart Disease", "Diabetes and Kidney Disease", and "Diabetes and Periodontal Disease...". Each result includes a checkbox, a title, and a language indicator (English). Below the list, there is a paragraph of text: "If you have diabetes, you are two to four times more likely to have heart disease than someone without diabetes. You can control your health risks by making some changes in your life." The "Content" pane displays a "Tips" section with a list of instructions for using Krames-on-Demand content. Two yellow callout boxes are overlaid on the screenshot. The first callout box, pointing to the search results, contains the text: "AVS automatically imports education topics based on CPRS encounter form diagnoses." The second callout box, pointing to the "Krames" button in the toolbar, contains the text: "Select the 'Krames' button from the AVS toolbar to open Krames-on-Demand patient education material." At the bottom of the interface, there is a section for "Upcoming Appointments" with the text "Appointments in the next 3 months:".

AVS automatically imports education topics based on CPRS encounter form diagnoses.

Select the "Krames" button from the AVS toolbar to open Krames-on-Demand patient education material.

Search Results

New Search...

- Before You Start Your Diabetes Ex...**
Language: English
- Diabetes and Alcohol Consumption**
Language: English
- Diabetes and Heart Disease**
Language: English

If you have diabetes, you are two to four times more likely to have heart disease than someone without diabetes. You can control your health risks by making some changes in your life.

- Diabetes and Kidney Disease**
Language: English

Diabetes makes your body less able to use the foods you eat. As a result, glucose (the form of sugar the body uses as fuel) builds up in the blood. Over time, having too much glucose in your blood can damage blood vessels and kidneys. By controlling diabetes, you can maintain a healthy blood glucose level and slow any kidney damage.

- Diabetes and Periodontal Disease:...**
Language: English

When you have diabetes, you are at greater risk for periodontal disease (infection of the gums and tissues supporting the teeth). Any periodontal disease you may develop can be more severe and harder to control. Preventing or controlling periodontal disease requires ongoing care.

- Diabetes: Activity Tips**

Results: 48

Content

Print: Patient Instructions: Close

Tips

- Click on a single document from the list of titles on the left to view the content.
- Select one or more titles and click the "Print Selected Articles" menu button to print all documents selected.
- Print all of a Krames article using the "Print Document" menu button.
- Print selected Krames content using the "Print Selection" menu button.
- Insert all of a Krames article into the Instructions section using the "Insert Document" menu button.
- Insert selected Krames content into the Instructions section using the "Insert Selection" menu button.
- Click "New Search..." to do a custom search based on keywords, MESH, ICD and CPT codes, and language preference.
- You may edit the content of Krames documents, including adding and modifying text and deleting text and images.

Upcoming Appointments Appointments in the next 3 months:

AVS Features - Integration with Krames-on-Demand

After Visit Summary

File

After Visit Summary - Cprs Physician (LOMA LINDA HCS)

TEST PATIENT: 000-00-1234 Jan 1, 1970 (43) Last Refreshed: Sep 27, 13@16:59:15

Krames StayWell HealthSheets

Search Results

Before You Start Your Diabetes Ex...
Language: English

Diabetes and Alcohol Consumption
Language: English

Diabetes and Heart Disease
Language: English

If you have diabetes, you are two to three times more likely to have heart disease than someone without diabetes. You can control your health risks by making some changes in your life.

Diabetes and Kidney Disease
Language: English

Diabetes makes your body less able to use the foods you eat. As a result, glucose (the form of sugar the body uses as fuel) builds up in the blood. Over time, having too much glucose in your blood can damage blood vessels and kidneys. By controlling diabetes, you can maintain a healthy blood glucose level and slow any kidney damage.

Diabetes and Periodontal Disease:...
Language: English

When you have diabetes, you are at greater risk for periodontal disease (infection of the gums and tissues supporting the teeth). Any periodontal disease you may develop can be more severe and harder to control. Preventing or controlling periodontal disease requires ongoing care.

Diabetes: Activity Tips

Results: 48

Content

Print: [Printer Icon] [Document Icon] [Close] Patient Instructions: [Document Icon] [Close]

Tips

• Click on a single document from the list of titles on the left to view the document.

• Article titles can be selected with the checkboxes and then printed with the "Print Selected Articles" menu button.

• Click "Print Document" menu button.

• Print selected Krames content using the "Print Selection" menu button.

• Insert all of a Krames article into the Instructions section using the "Insert Document" menu button.

• Insert selected Krames content into the Instructions section using the "Insert Selection" menu button.

• Click "New Search..." to do a custom search based on keywords, MESH, ICD and CPT codes, and language preference.

• You may edit the content of Krames documents, including adding and modifying text and deleting text and images.

Upcoming Appointments

Appointments in the next 3 months:

VA LOMA LINDA HEALTHCARE SYSTEM

A Division of VA Desert Pacific Healthcare Network

AVS Features - Integration with Krames-on-Demand

New Orders From This Visit None

Important Notes

Upcoming Appointments

Appointment

10/02/2013

11:00 AM - LI/Surg/Pod/Wound Limb/Wed

Instructions

Check your blood sugar 3 times weekly and record the readings in the diabetes record book provided.

Please read Krames on Demand articles: "Diabetes and Heart Disease"

My Ongoing Care

Primary Care Provider

BYRNE,JOHN M
MOD 4 - PACT TEAM A

Allergies

Penicillin, Sulfonamides

When one or more articles are selected for printing in Krames, the line "Please read Krames..." is automatically inserted into the Instructions section.

AVS Features - Integration with Krames-on-Demand

The screenshot shows a software window titled "After Visit Summary" with a menu bar (File) and a title bar ("After Visit Summary - Cprn Physician (LOMA LINDA HCS)"). The main content area is divided into two panes: "Search Results" on the left and "Content" on the right. The "Search Results" pane lists several articles, with "Diabetes and Heart Disease" selected. A yellow callout box points to this article with the text: "A single article may be selected for display by clicking on the article title. The document may then be printed or inserted into the AVS Instructions section." The "Content" pane displays the full text of the selected article, including a sub-header "Diabetes and Heart Disease", a paragraph of text, an illustration of a doctor and a patient, and a section titled "Your main risk factors".

Search Results

- Before You Start Your Diabetes Ex...
Language: English
- Diabetes and Alcohol Consumption
Language: English
- Diabetes and Heart Disease
Language: English
- Diabetes and Kidney Disease
Language: English

If you have diabetes, you are two to four times more likely to have heart disease than someone without diabetes. You can control your health risk by making some changes in your life.

Content

Diabetes and Heart Disease

If you have diabetes, you are two to four times more likely to have heart disease than someone without diabetes. This is because most people with diabetes also have the main risk factors for heart disease. But there's good news. You can help control your health risk by making some changes in your life.



Your main risk factors

Three major risk factors for heart disease are high blood sugar, high blood pressure, and high levels of lipids. By keeping risk factors under control, you can help keep your heart and arteries healthy. This may reduce your chances of a heart attack.

Upcoming Appointments Appointments in the next 3 months:

AVS Features - Integration with Krames-on-Demand

The screenshot displays the 'Krames StayWell HealthSheets' application. It features a search results pane on the left with several articles listed, each with a checkbox and the language 'English'. The main content area shows a document titled 'Changes you can make' with several paragraphs and a bulleted list of instructions. Two yellow callout boxes provide context: one points to a highlighted section of text, and the other points to the 'Insert Selection' button in the toolbar.

Search Results

- Before You Start Your Diabetes Ex...**
Language: English
- Diabetes and Alcohol Consum...**
Language: English
- Diabetes and Heart Disease**
Language: English
- Diabetes and Kidney Disease**
Language: English

If you have diabetes, you are two to more likely to have heart disease than someone without diabetes. You can reduce your health risks by making some changes in your life.

Diabetes makes your body less able to use the foods you eat. As a result, glucose (the form of sugar the body uses as fuel) builds up in the blood. Over time, having too much glucose in your blood can damage blood vessels and kidneys. By controlling diabetes, you can maintain a healthy blood glucose level and...

Content

Print: Document Selection Patient Instructions: Insert Document Insert Selection Close

Changes you can make

...or the selected content may be inserted into the AVS Instructions section.

- **Testing your blood sugar** is the only way to know whether it is under control. Be sure to test your blood sugar yourself. Also get your blood tested in the lab, as directed.
- **Monitoring your blood pressure and lipid levels** can help you achieve safe levels. Visit your health care team as scheduled.
- **Taking medications as directed** can help control blood sugar, blood pressure, blood clotting, and/or cholesterol levels.

...might can reduce your risk factors and help you live longer. Try to li

AVS Features - Integration with Krames-on-Demand

The screenshot displays a web browser window titled "After Visit Summary" for a patient named Robert M Durkin. The patient's information includes "Zztest,Eleven", "000-00-0148", and "May 5, 1945 (68)". The "Last Refreshed" time is "Oct 02, 13@13:37:02". The encounter is identified as "LL/SWS/RESPITE". The interface includes a toolbar with options like "Refresh", "Edit Instructions", "Edit AVS", "Options", "Krames", "Note", "Print", and "PDF".

The main content area is divided into sections. The "Instructions" section is titled "Diabetes and Heart Disease" and contains the following text:

If you have diabetes, you are two to four times more likely to have heart disease than someone without diabetes. This is because most people with diabetes also have the main risk factors for heart disease. But there's good news. You can help control your health risks by making some changes in your life.

Below this text is an illustration of a doctor in a white coat and pink shirt sitting at a desk with an elderly woman in a purple top. The doctor is pointing to a heart diagram on the desk. A yellow speech bubble points to this illustration with the text: "Krames content is inserted into the Instructions section of the AVS."

Below the illustration is another section titled "Your main risk factors" with the following text:

Three major risk factors for heart disease are high blood sugar, high blood pressure, and high levels of lipids. By keeping risk factors under control, you can help keep your heart and arteries healthy. This may reduce your chances of a heart attack.

- **Blood sugar.** High blood sugar can make artery walls rough. Plaque (waxy material in the blood) can then build up, making it harder for blood to flow through the arteries. Having high blood sugar increases the chances of having high blood pressure and high cholesterol.
- **Blood pressure.** When blood pressure is high all the time, artery walls become damaged, increasing the risk for plaque build up.
- **Lipids.** The body needs some lipids in the blood to stay healthy. But lipid levels that are too high can damage the artery walls. Lipids include **cholesterol** and **triglycerides**. There are two kinds of cholesterol. LDL ("bad") cholesterol can damage the arteries. But HDL ("good") cholesterol helps clear LDL cholesterol from the blood. This helps keep the arteries healthy. When blood sugar is high, the level of triglycerides in the blood may also be high. High blood triglyceride levels can cause plaque to form.

AVS Features - Integration with Krames-on-Demand

The screenshot displays the 'Krames StayWell HealthSheets' application interface. The main window is titled 'Content' and shows a document titled 'Diabetes and Heart Disease'. The document text reads: 'If you have diabetes, you are two to four times more likely to have heart disease than someone without diabetes. You can control your health risks by making some changes in your life.' Below this, there is a section titled 'Your main risk factors' which states: 'Three major risk factors for heart disease are high blood sugar, high blood pressure, and high levels of lipids. By keeping risk factors under control, you can help keep your heart arteries healthy. This may reduce your chances of a heart attack.'

On the left side, there is a 'Search Results' panel with a search bar and a list of search results. The first three results are: 'Before You Start Your Diabetes Ex...', 'Diabetes and Alcohol Consumption', and 'Diabetes and Heart Disease'. Below these are sections for 'Diabetes and Kidney Disease' and 'Diabetes and Periodontal Disease...'. At the bottom of the panel, it says 'Diabetes: Activity Tips' and 'Results: 48'.

A 'Krames Search' dialog box is overlaid on the document. It contains the following fields and options: 'Keywords:' with the text 'cardiomyopathy'; 'Logical operator:' with radio buttons for 'AND' and 'OR'; 'MeSH Codes:'; 'ICD9 Codes:'; 'CPT Codes:'; and 'Language:' with a dropdown menu. 'Cancel' and 'Search' buttons are at the bottom of the dialog. A yellow callout bubble points to the dialog box with the text: 'A search function of the entire Krames-on-Demand library is also available.'

AVS Features - Printing Functions

The screenshot displays the 'After Visit Summary' application window. The title bar reads 'After Visit Summary'. Below the title bar is a 'File' menu. The main content area shows 'After Visit Summary - Cprs Physician (LOMA LINDA HCS)' and patient information: 'TEST,PATIENT | 000-00-1234 | Jan 1, 1970 (43)'. A toolbar contains buttons for 'Refresh', 'Edit Instructions', 'Edit AVS', 'Options', 'Krames', 'Note', 'Print', and 'PDF'. The 'Print' button is highlighted, and its dropdown menu is open, showing 'Default Printer', 'Vista Printer...', and 'Windows Printer...'. A yellow callout box points to the 'Default Printer' option with the text: 'Print to the default printer: either the default Windows printer or network printer selected as the default.' The main content area also displays the title 'After Visit Summary', patient name 'TEST,PATIENT', visit date '09/18/2013', and generation date '09/22/2013 11:31'. Below this is a section titled 'Today's Visit' with a sub-section 'Clinics Visited' listing two visits: '13:30 - Dr. Byrne, Module 4' and '15:00 - L/Surg/Pod/Wound Limb/Wed'.

After Visit Summary
TEST,PATIENT
Visit date: 09/18/2013
Date generated: 09/22/2013 11:31
LOMA LINDA HCS

Today's Visit

Clinics Visited

- 13:30 - Dr. Byrne, Module 4
- 15:00 - L/Surg/Pod/Wound Limb/Wed

AVS Features - Printing Functions

The screenshot shows a web browser window titled "After Visit Summary". The page header includes "After Visit Summary - Cprs Physician (LOMA LINDA HCS)", patient information "TEST,PATIENT 000-00-1234 Jan 1, 1970 (43)", and a timestamp "Last Refreshed Sep 22, 13@11:34:43". A toolbar contains buttons for "Refresh", "Edit Instructions", "Edit AVS", "Options", "Krames", "Note", "Print", and "PDF". The "Print" button is open, showing a dropdown menu with "Default Printer", "VistA Printer...", and "Windows Printer...". A yellow callout box points to the "VistA Printer..." option with the text: "Print to a network printer selected from a list obtained from VistA." The main content area displays "After Visit Summary" for "TEST,PATIENT" with visit details: "Visit date: 09/18/2013", "Date generated: 09/22/2013 11:34", and "LOMA LINDA HCS". Below this is a section titled "Today's Visit" with the text "Clinics Visited • 13:30 - Dr. Byrne, Module 4".

AVS Features - Printing Functions

The screenshot displays the 'After Visit Summary' application window. The main content area shows patient information for 'TEST, PATIENT' (DOB: 000-00-1234, Jan 1, 1970) and a list of 'Today's Visit' items including 'Clinics Visited', 'Providers', 'You Were Diagnosed With', 'Vitals as of This Visit', and 'Immunizations'. A 'Print' dialog box is overlaid on the screen, prompting the user to 'Select a printer from the list below.' The dialog includes a search bar with 'lommod4' entered, a table of printer options, and a checkbox to 'Set this device as the default printer'.

Printer	Location
LOMMOD4	MOD34
LOMMOD4LABEL\$PRT	MOD 4
LOMMOD4XDC	MOD 4

Selected Printer: **LOMMOD4**

Set this device as the default printer

Buttons: Cancel, Apply, Print

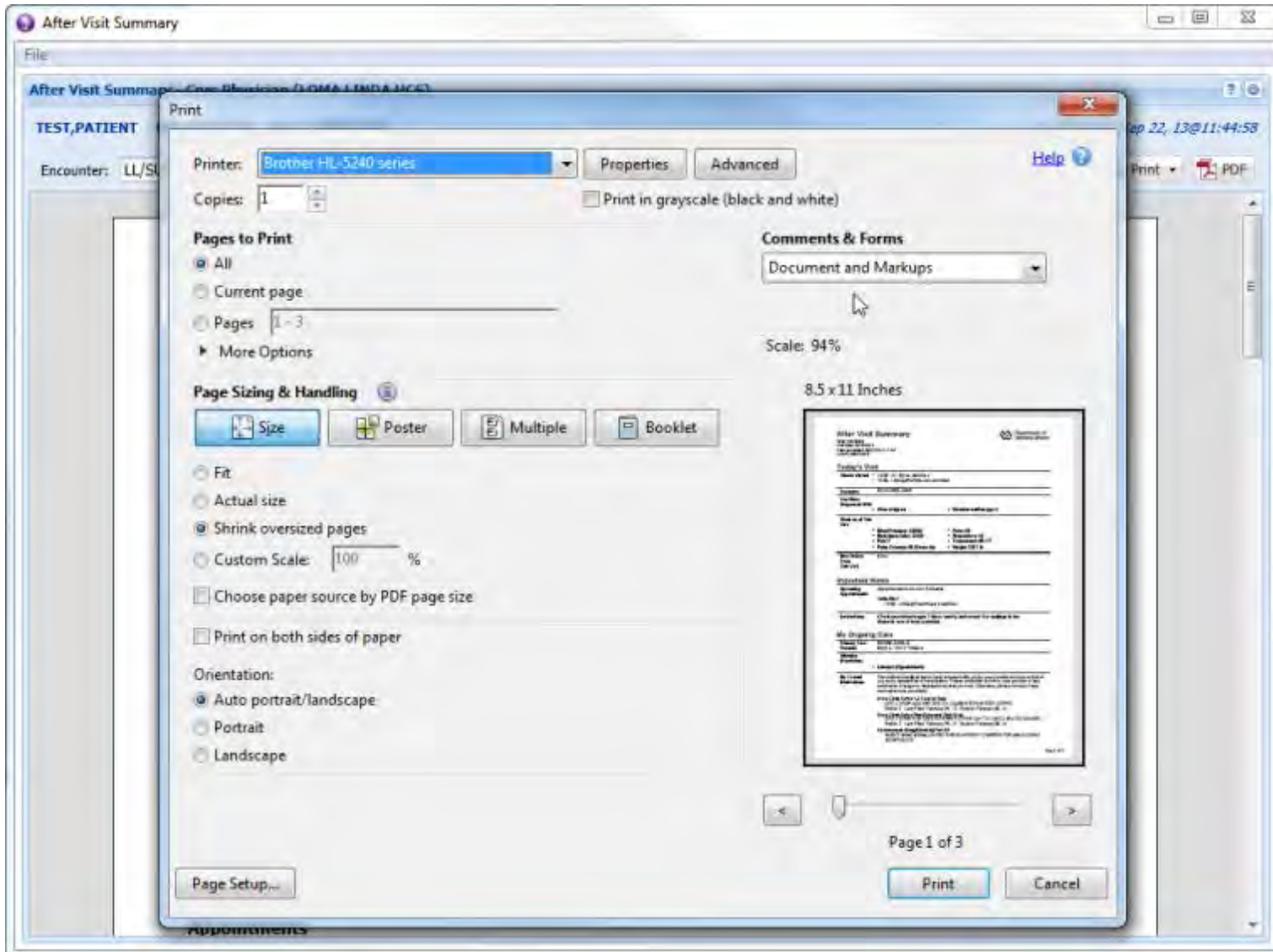
Callouts:

- VistA printer search function.
- Select the printer from the list.
- Set the selected printer as the default.

AVS Features - Printing Functions

The screenshot displays the 'After Visit Summary' application window. The title bar reads 'After Visit Summary'. Below the title bar is a 'File' menu. The main content area shows 'After Visit Summary - Cprs Physician (LOMA LINDA HCS)' and patient information: 'TEST,PATIENT 000-00-1234 Jan 1, 1970 (43)'. A toolbar contains buttons for 'Refresh', 'Edit Instructions', 'Edit AVS', 'Options', 'Krames', 'Note', 'Print', and 'PDF'. The 'Print' button is highlighted, and a dropdown menu is open, listing 'Default Printer', 'VistA Printer...', and 'Windows Printer...'. A yellow callout box points to this menu with the text: 'Select a printer from a list obtained from Windows.' The main content area also displays the title 'After Visit Summary', patient name 'TEST,PATIENT', visit date '09/18/2013', and generation date '09/22/2013 11:37'. Below this is the section 'Today's Visit' with a list of 'Clinics Visited': '13:30 - Dr. Byrne, Module 4' and '15:00 - LI/Surg/Pod/Wound Limb/Wed'. The background of the main content area features a large graphic with the text 'Department of Veterans Affairs'.

AVS Features - Printing Functions



AVS Features - Note Creation

The screenshot shows the 'After Visit Summary' application window. The title bar reads 'After Visit Summary'. The main content area displays patient information: 'TEST,PATIENT 000-00-1234 Jan 1, 1970 (43)'. A toolbar includes buttons for 'Refresh', 'Edit Instructions', 'Edit AVS', 'Options', 'Krames', 'Note', 'Print', and 'PDF'. A dropdown menu is open under the 'Note' button, showing 'Create Note' and 'Print Document & Create Note'. A yellow callout box points to the 'Note' button with the text: 'A stub note can be created in CPRS and a PDF copy of the AVS document uploaded to VistA Imaging.' The main content area is titled 'After Visit Summary' and includes the following sections:

After Visit Summary
TEST,PATIENT
Visit date: 09/18/2013
Date generated: 09/22/2013 11:48
LOMA LINDA HCS

Today's Visit

Clinics Visited

- 13:30 - Dr. Byrne, Module 4
- 15:00 - LI/Surg/Pod/Wound Limb/Wed

Providers PROVIDER,JANE

You Were Diagnosed With

- Ulcer of big toe
- Diabetes mellitus type 2

Vitals as of This Visit

- Blood Pressure: 128/54
- Pulse: 66
- Body Mass Index: 34.58
- Respirations: 18
- Pain: 7
- Temperature: 98.1 F
- Pulse Oximetry: 96 (Room Air)
- Weight: 233.7 lb

New Orders From This Visit None

Important Notes

Upcoming Appointments Appointments in the next 3 months:

AVS Note Creation

Vista CPRS in use by: Byrne, John M (vista.loma-linda.med.va.gov)

File Edit View Action Options Tools Help

ZZTEST.ELEVEN (OUTPATIENT) Visit Not Selected Primary Care Team Unassigned
000-00-0148 May 05,1945 (68) Provider: BYRNE,JOHN M

Last 50 Signed Notes (Total: 1721)

- Jun 11,13 AFTER VISIT SUMMARY
- Jun 11,13 23-HOUR INITIAL OBSE
- Jun 11,13 CBOC COR/PHYSICIAN
- Jun 11,13 MED/GIM/PRIMAR
- Jun 11,13 CAC TEST NOTE, LL/GI
- Jun 10,13 MED/GIM/PRIMAR
- Jun 10,13 CBOC COR/PHYSICIAN
- May 30,13 GEC REFERRAL SOCIA
- May 30,13 GEC REFERRAL SOCIA
- May 30,13 GEC REFERRAL CARE
- May 30,13 GEC EXTENDED CARE
- May 30,13 GEC EXTENDED CARE
- May 30,13 GEC EXTENDED CARE
- May 30,13 GEC EXTENDED CARE
- May 30,13 GEC EXTENDED CARE
- May 30,13 GEC EXTENDED CARE
- May 30,13 GEC EXTENDED CARE
- May 30,13 GEC EXTENDED CARE
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- May 30,13 GEC EXTENDED CARE
- May 30,13 GEC EXTENDED CARE
- May 30,13 GEC EXTENDED CARE
- May 30,13 GEC REFERRAL SOCIA
- May 30,13 GEC EXTENDED CARE
- May 30,13 GEC EXTENDED CARE
- May 21,13 CHAPLAIN/SPIRITUALI
- May 14,13 SURG/GEN/CLINIC VIS
- May 08,13 NURS/STUDENT NUR:
- Apr 26,13 NURS/MOD 5 NOTE, LL

Visit: AFTER VISIT SUMMARY NOTE, LL/GIM/BYRNE/MO

LOCAL TITLE: AFTER VISIT SUMMARY NOTE
STANDARD TITLE: EDUCATION NOTE
DICT DATE: JUN 11, 2013@16:19:09 ENTRY DATE:
DICTATED BY: BYRNE,JOHN M EXP COSIGNER:
URGENCY: STATUS:

The patient was provided with a copy of an after conclusion of the visit.

The after-visit summary includes information per including diagnoses, vital signs, medications, a any upcoming appointments and information regard

A copy of the after-visit summary provided to th VistA Imaging.

*** SCANNED DOCUMENT
SIGNATURE NOT REQUIRED

Electronically Filed: 06/11/2013
by: John M. Byrne, DO
Assoc. Chief of Staff fo

Templates
Encounter
New Note

Cover Sheet Problems Meds Orders Notes Consults Surgery D/C Summ Labs Reports

VistA Imaging

VistA Imaging Display : ZZTEST.ELEVEN (vista.loma-linda.me...)

File Context Options View Reports Help

Patient: ZZTEST.ELEVEN 164 of 165 Images match Filter: "Clinical All"

050545 000-00-0148 ACTIVE DUTY

LOM Patient: ZZTEST,ELEVEN

164 of 165 Images match Filter: "Clinical All"

164 Abstracts

- #1 [LOM] UNASSIGNED UNASSIGNED 06/11/2013 15:19
- #2 [LOM] DIABETIC T CONSPROC 03/09/13
- #3 [LOM] ...
- #5 [LOM] Administrative CONSENT 07/09/12
- #6 [LOM] Humankans CONSENT 07/09/12
- #7 [LOM] ...
- #8 [LOM] Abdomen - I CONSENT 07/09/12
- #9 [LOM] Abdomen - CONSENT 05/04/12
- #10 [LOM] ...
- Group of 8
- #10 [LOM] DIABETIC T CONSPROC 03/09/13
- #14 [LOM] VA Advance ADVANCE 03/09/13
- #15 [LOM] ...

May 30,13 GEC REFERRAL SOCIA
May 30,13 GEC EXTENDED CARE
May 30,12 GEC EXTENDED CARE
May 21,13 CHAPLAIN/SPIRITUALI
May 14,13 SURG/GEN/CLINIC VIS
May 08,13 NURS/STUDENT NUR:
Apr 26,13 NURS/MOD 5 NOTE, LL

Templates
Encounter
New Note

Cover Sheet Problems Meds Orders Notes Consults Surgery D/C Summ Labs Reports

VistA Imaging Display : ZZTEST.ELEVEN (vista.loma-linda.me...)

ST.ELEVEN

0EZ All Admin All Admin All BA1 2 yr BA1 6 mth ...

#Consults #ER Notes #MED Consent #Ophthalmology

ASSIGNED 06/11/2013 15:1

Item	Site	Note
LOM	AFTI	1,13@16
LOM	CON	
LOM	CON	
LOM	CON	
LOM	CON	

robot

Full Resolution View: ZZTEST.ELEVEN

1 Image

[LOM] UNASSIGNED UNASSIGNED 06/11/2013 15:19 pg 1 of 2

After Visit Summary

ZZTEST.ELEVEN
Visit date: 06/10/2013
Date generated: 06/11/2013 15:19

Today's Visit

Clinics Visited 15:40 - Dr. Byrne, Module 4

Vitals as of This Visit

- Blood Pressure: 129/70
- Body Mass Index: 22.83
- Pain: 0
- Pulse Oximetry: 98
- Pulse: 72
- Respirations: 12
- Temperature: 98.6 F
- Weight: 165 lb

New Orders From This Visit

Consultations

You will be contacted by mail or telephone for the following referrals:

- Diabetes Outpatient Education

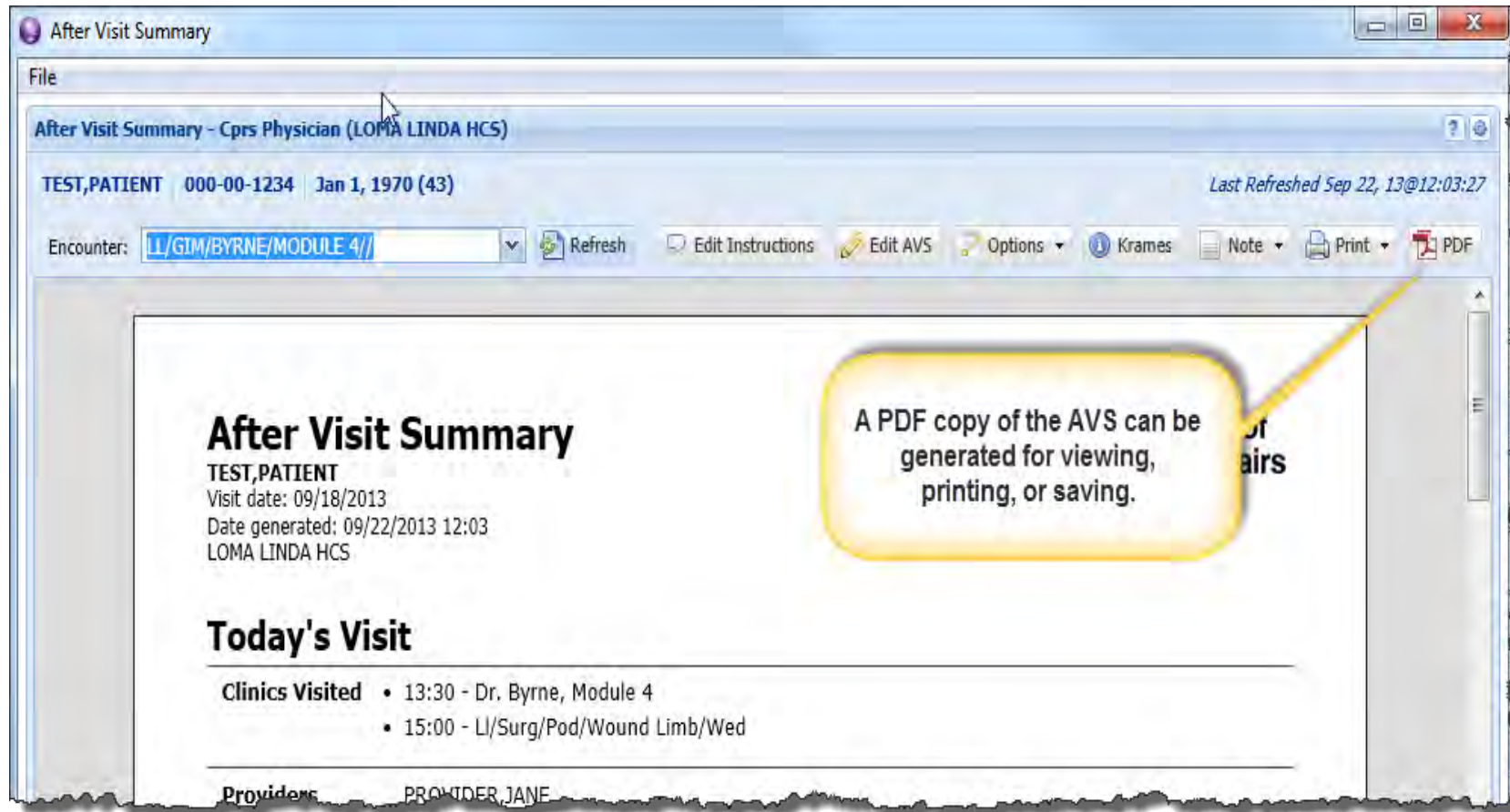
1 Image

Templates
Encounter
New Note

Cover Sheet Problems Meds Orders Notes Consults Surgery D/C Summ Labs Reports

CPRS

AVS Features - PDF Generation



After Visit Summary

File

After Visit Summary - Cprs Physician (LOMA LINDA HCS)

TEST,PATIENT 000-00-1234 Jan 1, 1970 (43) Last Refreshed Sep 22, 13@12:03:27

Encounter: LL/GIM/BYRNE/MODULE 4// Refresh Edit Instructions Edit AVS Options Krames Note Print PDF

After Visit Summary
TEST,PATIENT
Visit date: 09/18/2013
Date generated: 09/22/2013 12:03
LOMA LINDA HCS

Today's Visit

Clinics Visited

- 13:30 - Dr. Byrne, Module 4
- 15:00 - LI/Surg/Pod/Wound Limb/Wed

Providers PROVIDER, JANE

A PDF copy of the AVS can be generated for viewing, printing, or saving.

AVS Features - PDF Generation

After Visit Summary

TEST, PATIENT
Visit date: 09/18/2013
Date generated: 09/22/2013 12:04
LOMA LINDA HCS

Department of Veterans Affairs

Today's Visit

Clinics Visited

- 13:30 - Dr. Byrne, Module 4
- 15:00 - LI/Surg/Pod/Wound Limb/Wed

Providers PROVIDER,JANE

You Were Diagnosed With

- Essential hypertension
- Obesity
- Dyslipidemia
- Cholelithiasis without obstruction
- Smoker
- Coronary arteriosclerosis
- Ankylosing spondylitis
- Hypersomnia with sleep apnea
- Dyspnea
- Chronic obstructive lung disease
- Diabetes mellitus type 2
- Gastroesophageal Reflux Disease

Vitals as of This Visit

- Blood Pressure: 128/54
- Body Mass Index: 34.58
- Pain: 7
- Pulse Oximetry: 96 (Room Air)
- Pulse: 66
- Respirations: 18
- Temperature: 98.1 F
- Weight: 233.7 lb

Immunizations

Quick Print Print Close

This Visit Please report to the Lab for the following blood tests on the data listed for each test:

AVS Features - Administrative Functions

The screenshot shows the 'AVS Admin Settings' window with the 'Services' tab selected. A callout box highlights the 'Add Service' button and the service list table. The table contains the following data:

Name	Location	Operating Hours	Phone	Comment
Module 3	First Floor	0800-1630	909-825-7084	
Module 4		0800-1630	909-825-7084	
Nephrology		0800-1630	909-583-6090	
Neurology		0800-1630	909-583-6049	
Neurosurgery		0800-1630	909-825-7084, ext 1...	
Oncology		0800-1630	909-583-6131	
Orthopedics		0800-1630	909-801-5650	
Pharmacy		0800-1800	909-825-7084, ext 5...	
Physical Medicine and Rehabilitation (PM&R)	Second Floor	0800-1630	909-583-2061	
Plastic Surgery	3 Northeast	0800-1630	909-825-7084, ext 1...	
Podiatry	First Floor, 1A84	0800-1630	909-801-5650	
Prosthetics	1790 West Park Avenue, Suite #100, Redla...	0800-1630	909-825-7084, ext 6...	
Pulmonary	Fourth Floor	0800-1630	909-583-6098	
Radiology	Third Floor	0800-1630	909-583-6069	
Redlands Boulevard Clinic (RBOC)	25828 Redlands Blvd, Redlands, CA	0730-1600	909-825-7084 ext 70...	
Rheumatology	3 Northeast	0800-1630	909-825-7084, ext 5...	
Sleep Center	Fourth Floor	0800-1630	909-825-7084, ext 6...	General questions, CPAP c...
Sleep Center, Home Studies	Home Studies	0800-1630	909-825-7084, ext 2...	
Surgical Oncology	3 Northwest	0800-1630	909-825-7084, ext 1...	
Thoracic and Breast Surgery	3 Northwest	0800-1600	909-825-7084, ext 1...	
Urology	2 Northwest	0800-1630	909-583-6065	
Urology/Cystoscopy	Third Floor, 3F10	0800-1630	909-825-7084, ext 6...	
Vascular Surgery	3 Northwest	0800-1630	909-825-7084, ext 2...	
Womens Health	Redlands Boulevard Clinic (RBOC) 25828 Re...	0800-1630	909-478-7070	

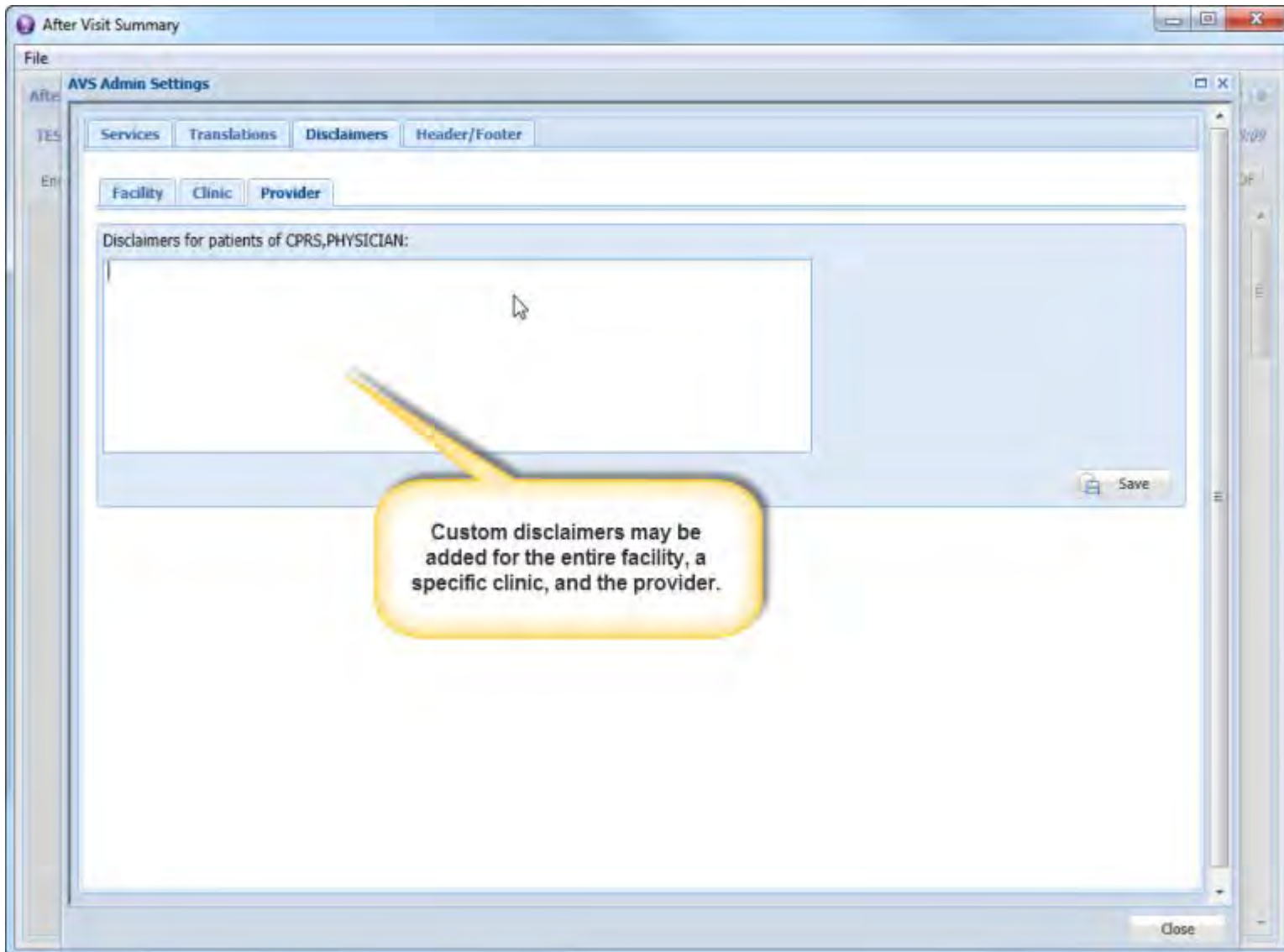
AVS Administrative Functions

The screenshot shows the 'AVS Admin Settings' window with the 'Translations' tab selected. A search bar contains 'rtc'. A table lists various source strings and their corresponding translations. A callout box points to the translation 'Return to Clinic in 3 months' for the source string '>> RTC 3 months'.

ID	Type	Source String	Translation (Click a cell to edit it)
322	Order Text	>> RTC 3 months	Return to Clinic in 3 months
307	Order Text	>> RTC 4 months with labs	
312	Order Text	>> RTC 6 months	
1148	Order Text	dm/chol in 3 month rtc in 6 months	
2715	Order Text	lipid panel in 1 month rtc in 6 months	
3108	Order Text	mammogram lva rtc 12 months w/ outside labs	
101	Order Text	RTC 12 months	
111	Order Text	RTC 12 months or as needed	
2756	Order Text	rtc 12 months w/ outside labs	
3109	Order Text	rtc 12 months w/ outside labs or fasting labs	
104	Order Text	RTC 3 months	
142	Order Text	RTC 4 months	
74	Order Text	RTC 6 months	
3115	Order Text	rtc 6 months w/ fasting labs	
2773	Order Text	rtc 6 months w/ fasting labs *UNSIGNED*	
1702	Order Text	rtc 6 months w/ fasting labs fit test	
3185	Order Text	rtc 6 months with labs prior	
2741	Order Text	rtc 6 weeks	
2409	Order Text	rtc 6-8 weeks	
2407	Order Text	rtc 6-8 weeks *UNSIGNED*	
30	Order Text	RTC AS SCHEDULED	

Patient-friendly text may be entered to replace abbreviations and obscure terms/orders.

AVS Features - Administrative Functions



AVS Features - Administrative Functions

The screenshot shows the 'AVS Admin Settings' window with the 'Header/Footer' tab selected. The 'Header HTML' field contains the following code:

```
<div style="float:right;margin:0 0 5px 20px;"></div><div style="font-size:1.8em;font-weight:bold;">After Visit Summary</div><div style="font-size:0.9em;font-weight:bold;">%PATIENT_NAME%</div><div style="font-size:0.9em;">Visit date: %ENCOUNTER_DATE%</div><div style="font-size:0.9em;">Date generated: %CURRENT_DATE%</div><div style="font-size:0.9em;">%FACILITY_NAME%
```

The 'Footer HTML' field contains the following text:

This information is meant to provide a summary of your appointment with your health care provider. If you have any questions about your care including test results, medications, diagnoses or other concerns, please contact your health care provider. Please bring this form to your next visit as a record of your medications and alert your provider to any changes in your medications.

The 'Optional String Replacements' table is as follows:

String	Replacement
%PATIENT_NAME%	Patient name
%ENCOUNTER_DATE%	Date of the encounter
%ENCOUNTER_DATETIME%	Date and time of the encounter
%CURRENT_DATE%	Current date
%CURRENT_DATETIME%	Current date and time
%FACILITY_NAME%	Name of the facility

A yellow callout box points to the HTML fields with the text: "The HTML content of the header and footer may be edited. Optional string replacements may be used in the HTML."

The 'Preview' section shows a sample of the 'After Visit Summary' form. The header includes the Department of Veterans Affairs logo and name. The patient information is: Bonaparte, Napoleon, Visit date: 05/28/2011, Date generated: 09/22/2013 16:57, Metropolis VA Medical Center. The main body of the form is labeled "[SHEET CONTENTS HERE]". The footer contains the same explanatory text as in the 'Footer HTML' field.

Poll Question

- As a patient, what information on the AVS would be most important to you? (Pick your top 3)
 - Providers name, visit location and date and contact information
 - Updated medication list
 - Medication physical descriptions
 - Updated vitals
 - Reason for visit
 - Procedures and instructions
 - Updated problem list and diagnoses
 - Upcoming appointments
 - Laboratory and test orders
 - Laboratory and other test results
 - Clinical data charts
 - Patient education material
 - Large font size

Lessons Learned

- Software Development Plan
- Positives
 - Rapid development
 - Small development team, local programmer
 - Feedback directly from users
 - Informal, not bureaucratic
 - Flexibility

Lessons Learned

- Challenges
 - Feature creep/Scope bloat
 - Users are testers
 - Software bugs
 - Class III status
 - Class I approval process
 - Software changes for class I compliance
 - Requirements analysis might have missed things like medication reconciliation
 - Consistency with other patient-facing software

AVS - Current Status

- Presented to VHA Innovations Selection Board for possible funding for class I development (October 2013)
- Veterans Points of Service
 - Possible funding (September 2013)
- VA OI&T Region 1 approval for testing
 - September 2013
 - San Diego
 - October/November 2013
 - Long Beach, West LA, Las Vegas, Cleveland

AVS Evaluation

- Veterans Assessment and Innovation Laboratory (VAIL) Patient-Aligned Care Team (PACT) Demonstration Lab
 - \$10,000 grant (September 2013)
- Evaluation Plan
 - Randomly select ~ 150 patients in primary care clinics
 - Patient satisfaction survey
 - Survey self-assessed knowledge of treatment plan

AVS Evaluation

- VAIL Grant
 - Collect usage statistics from primary care modules
 - Number of providers using AVS
 - Use of optional features
 - Saving and printing
 - Provider preferences for using AVS
 - Patient self-assessed health status on survey
 - Provider focus group

Contact Information

- John M. Byrne, D.O.
- Associate Chief of Staff for Education
- VA Loma Linda Healthcare System
- 11201 Benton Street
- Loma Linda, CA 92357
- 909-583-6004
- john.byrne3@va.gov

References

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https://securereports2.vssc.med.va.gov/ReportServer/Pages/ReportViewer.aspx?%2fSecureMessaging%2fSM_Penetration&rs:Command=Render , Accessed October 31, 2013
- 7. Ralston JD, Carrell, D, Reid R, Anderson M, Moran M, Hereford J. Patient web services integrated with a shared medical record: patient use and satisfaction. JAMIA 2007; 14:798-806.
- 8. Throop C, The Ix After-Visit Summary (AVS), Center for Information Therapy. October 2009
- 9. Jha AK, et al A progress report on electronic health records in US hospitals . Health Affairs 2010: 29(10): 1951-1957
- 10. Centers for Medicare and Medicaid Services, Stage 2, Eligible Professional, Meaningful Use Table of Contents, Core and Menu Set Objectives, <https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/downloads/EP-MU-TOC.pdf>
- 11. Centers for Medicare and Medicaid Services, Stage 2, Eligible Professional, Meaningful Use Core Measures, Measure 8 of 17, October, 2012. http://www.cms.gov/Regulations-andGuidance/Legislation/EHRIncentivePrograms/downloads/Stage2_EPCore_8_ClinicalSummaries.pdf , accessed November 5, 2013.
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<http://www.modernhealthcare.com/article/20121025/NEWS/310259956>, accessed May 2013

Appendix: AVS Example

After Visit Summary

TEST, PATIENT

Visit date: 09/18/2013

Date generated: 09/23/2013 06:48

LOMA LINDA HCS



Today's Visit

- Clinics Visited**
- 13:30 - Dr. Byrne, Module 4 / PROVIDER,JANE
 - 15:00 - LI/Surg/Pod/Wound Limb/Wed / PROVIDER,JANE

Providers

GOMEZ,LAUREN M
BYRNE,JOHN M

- You Were Diagnosed With**
- Essential hypertension
 - Obesity
 - Dyslipidemia
 - Cholelithiasis without obstruction
 - Smoker
 - Coronary arteriosclerosis
 - Ankylosing spondylitis
 - Hypersomnia with sleep apnea
 - Dyspnea
 - Chronic obstructive lung disease
 - Diabetes mellitus type 2
 - Gastroesophageal Reflux Disease

- Vitals as of This Visit**
- Blood Pressure: 128/54
 - Body Mass Index: 34.58
 - Pain: 7
 - Pulse Oximetry: 96 (Room Air)
 - Pulse: 66
 - Respirations: 18
 - Temperature: 98.1 F
 - Weight: 233.7 lb

Immunizations • FLU,3 YRS

New Orders From This Visit

Lab Tests

Please report to the lab for the following blood tests on the date listed for each test:

01/16/2014

- Basic Metabolic Panel (Chem 7) Blood Serum
- Hemoglobin A1c (Lab) Blood
- Lipid Profile Blood Serum
- Hepatic Function Panel Blood Serum

Other Orders

- Return To Clinic In 4 Months

AVS Example

Important Notes

Upcoming Appointments Appointments in the next 3 months:
12/26/2013
13:00 - LI/Surg/Eye/Comprehensive CI

Instructions Monitor your blood pressure daily and keep a log.

My Ongoing Care

Primary Care Provider BYRNE,JOHN M
MOD 4 - PACT TEAM A

Allergies (Reactions) • Penicillin (Hives)

My Current VA Medications The medications listed below were reviewed with you by your provider and is provided to you as an updated list of medications. Please remember to inform your provider of any medication changes or discrepancies that you note. Otherwise, please continue these medications as prescribed.

Accu-Chek Aviva Plus(Glucose) Test Strip

USE 1 STRIP FOR TESTING EVERY OTHER DAY TO CHECK BLOOD SUGARS
Refills: 2 Last Filled: December 28, 13 Expires: October 31, 14

Aspirin 325mg Ec Tab

TAKE ONE TABLET BY MOUTH DAILY WITH FOOD
Refills: 3 Last Filled: December 28, 13 Expires: October 31, 14
Description: round, orange, imprinted with T,

Glipizide 5mg Tab

TAKE ONE TABLET BY MOUTH TWICE A DAY FOR DIABETES ***TAKE IN ADDITION TO METFORMIN**
Refills: 3 Last Filled: October 30, 13 Expires: October 31, 14
Description: round, white, imprinted with GG,771

Lancet,Softclix

USE LANCET AS DIRECTED
Refills: 1 Last Filled: October 31, 13 Expires: October 31, 14

Latanoprost 0.005% Oph Soln

INSTILL 1 DROP IN BOTH EYES AT BEDTIME
Refills: 5 Last Filled: October 09, 13 Expires: February 05, 14

Lisinopril 10mg Tab

TAKE ONE TABLET BY MOUTH DAILY FOR DIABETIC KIDNEYS.
Refills: 3 Last Filled: January 21, 14 Expires: October 31, 14
Description: round, white, imprinted with V, 3972

Metformin Hcl 1000mg Tab

TAKE ONE TABLET BY MOUTH TWICE A DAY WITH FOOD
Refills: 3 Last Filled: January 11, 14 Expires: October 31, 14
Description: oval, white, imprinted with GP,128

Simvastatin 80mg Tab

TAKE ONE TABLET BY MOUTH AT BEDTIME FOR HIGH CHOLESTEROL
Refills: 3 Last Filled: December 28, 13 Expires: October 31, 14
Description: oval, pink, imprinted with B 304, 80

AVS Example

My Non-VA Medications

Docosanol 10% Cream, Top
SMALL AMOUNT TOPICALLY AC(T)\BEDTIME

Absorbase Dry Skin Oint, Top
LIBERAL AMOUNT TOPICALLY 5 TIMES DAILY

Aspirin (Enteric Coated) Tab, Ec
81MG MOUTH DAILY

My Medications From Other VAs

Medications You Are Taking

Lipitor
10 MG BY MOUTH DAILY
Refills: 0 Last Filled: Nov 1, 13 Expires: Jan 1, 14
Facility: Cleveland VAMC Provider: Physician, Jane
Description: elliptical, white, imprinted with PD 155, 10

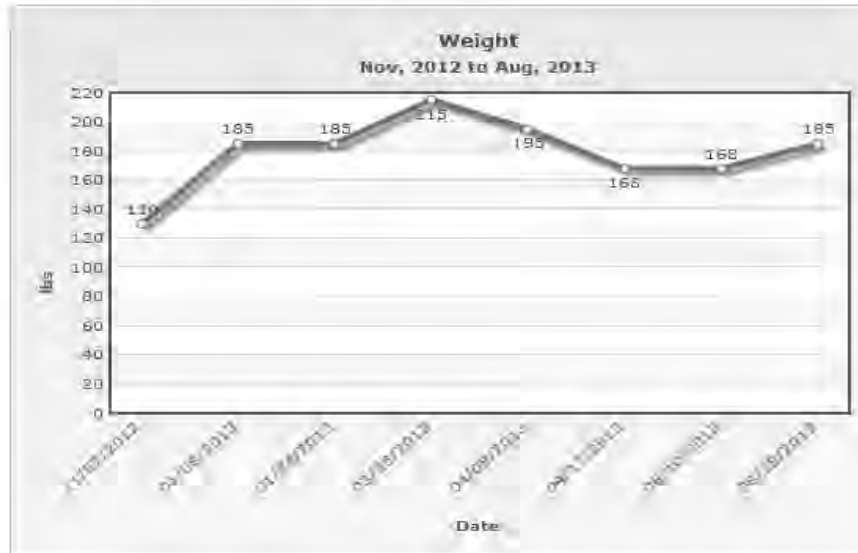
Medications You Are Not Taking

You have stated that you no longer take the following medications prescribed at other VA facilities. Please remember to discuss each of these medications with your VA providers at these facilities.

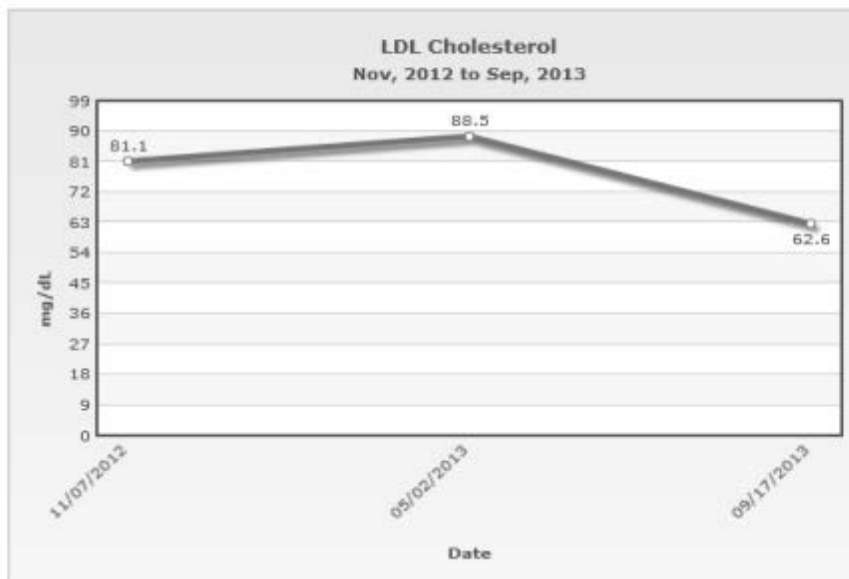
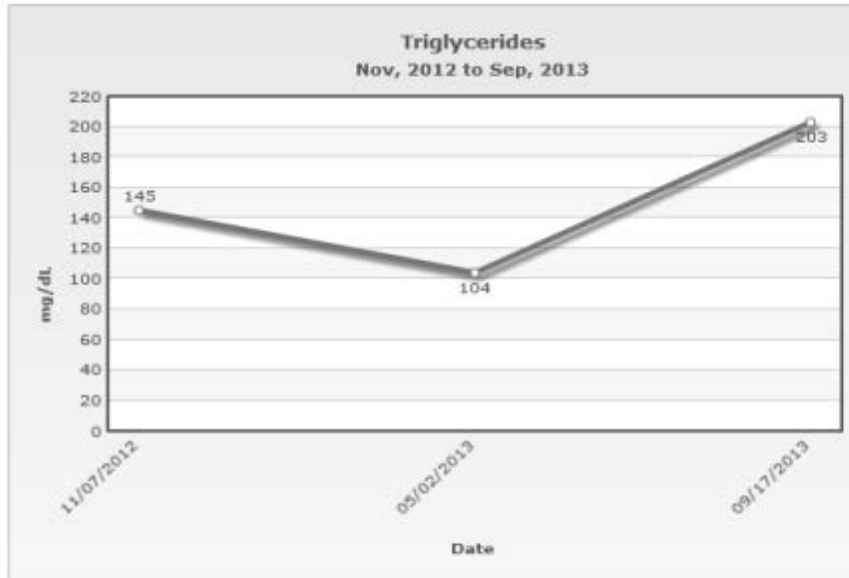
Nexium

20 MG BY MOUTH ONCE DAILY
Refills: 0 Last Filled: Oct 15, 13 Expires: Dec 15, 14
Facility: West Palm Beach VAMC Provider: Doc, John Q
Description: purple, imprinted with 20 mg

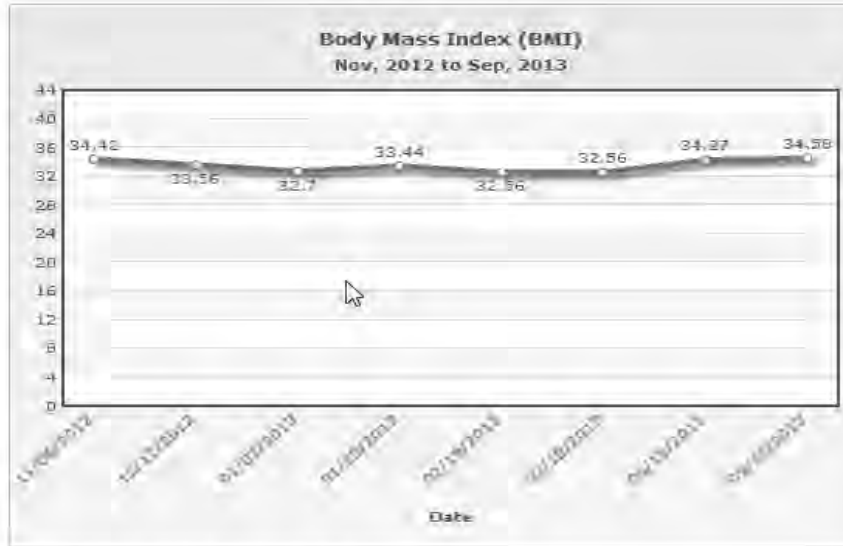
Clinical Graphs



AVS Example



AVS Example



Recent Lab Results

Report Released Date/Time: Sep 18, 2013@04:36
 Provider: BYRNE, JOHN M
 Specimen: BLOOD MBN 0517 223
 Specimen Collection Date: Sep 17, 2013@10:00

Test name	Result	units	Ref. range	Site Code
HEMOGLOBIN A1C (LAB)	5.9	%	4.2 - 5.9	[605]

Eval: SUGGESTED INTERPRETATION GLYCOSYLATED HEMOGLOBIN RESULTS:
 Eval: HGB A1C OF <6% CONSISTENT WITH NORMAL GLYCEMIA
 Eval: HGB A1C OF 6-9% SUGGESTS ACCEPTABLE GLUCOSE CONTROL
 Eval: HGB A1C OF 8-10% SUGGESTS FAIR GLUCOSE CONTROL
 Eval: HGB A1C OF OVER 10% SUGGESTS POOR GLUCOSE CONTROL
 Eval: RESULTS ADVERSELY AFFECTED BY HGB F >15%, HGB'S D AND E,
 Eval: AND HOMOZYGOUS HGBS S AND C.

Report Released Date/Time: Sep 17, 2013@16:59
 Provider: BYRNE, JOHN M
 Specimen: SERUM DX 0917 612
 Specimen Collection Date: Sep 17, 2013@10:00

Test name	Result	units	Ref. range	Site Code
SODIUM	137	mMol/L	136 - 144	[605]
POTASSIUM	4.1	mMol/L	3.6 - 5.1	[605]
CHLORIDE	99 L	mMol/L	101 - 111	[605]
CO2	30.0	mMol/L	22 - 32	[605]
UREA NITROGEN	20	mg/dL	9 - 20	[605]
CREATININE	1.08	mg/dL	.64 - 1.27	[605]
eGFR	>60	mL/min	Ref: >=60	[605]

Eval: eGFR is calculated by 4-variable MDRD equation of Levey modified for
 Eval: standardized creatinine. Stable creatinine presumed - ignore eGFR in
 Eval: dialysis patients. Interpret with caution in patients with acute renal
 Eval: failure. Units for eGFR are in mL/min/1.73 square meters.

GLUCOSE	80	mg/dL	74 - 118	[605]
CALCIUM	9.4	mg/dL	8.8 - 10.3	[605]
PROTEIN TOTAL	6.6	gm/dL	6.1 - 7.9	[605]

AVS Example

```
ALBUMIN                4.1      gm/dL      3.5 - 4.8      [605]
TOT. BILIRUBIN         0.8      mg/dL      0.2 - 1.2      [605]
DIR. BILIRUBIN        0.10     mg/dL      0.1 - 0.5      [605]
ALKALINE PHOSPHATASE   69       IU/L      32 - 91        [605]
ALT                    19       IU/L      17 - 63        [605]
  Eval: New sexed reference ranges in effect as of 6/7/13.
AST                    24       IU/L      15 - 41        [605]
CHOLESTEROL            133     mg/dL      0 - 200        [605]
  Eval: BORDERLINE ELEVATED: 201-239 mg/dL
  Eval: ELEVATED: OVER 240 mg/dL
TRIGLYCERIDES         203 H   mg/dL      0 - 150        [605]
  Eval:
  Eval: BORDERLINE: 150-199 mg/dL
  Eval: HIGH: 200-499 mg/dL
  Eval: VERY HIGH: >500 mg/dL
HDL CHOLESTEROL        30 L   mg/dL      40 - 60        [605]
  Eval: High Risk = <40 mg/dL
  Eval: Low Risk = >60 mg/dL
CALC LDL CHOL         62.6     mg/dL      0 - 100        [605]
HDL RISK FACTOR        4.4     mg/dL      4.0 - 6.7      [605]
  Eval: RISK = CHOLESTEROL/HDL CHOLESTEROL
```

```
=====  
Report Released Date/Time: Sep 17, 2013@18:33  
Provider: BYRNE, JOHN M  
Specimen: URINE RANDOM.      DX 0917 611  
Specimen Collection Date: Sep 17, 2013@10:00  
Test name      Result      units      Ref.  range  Site Code  
URINE ALBUMIN  1.7       mg/dL      0 - 1.9    [605]  
CREATININE,URINE 170.0     mg/dL      [605]  
MICROALB/CREAT RATIO 10.0  
  Eval: Reference ranges for Albumin / creatinine ratio:  
  Eval: <30 mg Albumin / gram Creatinine = Normal range  
  Eval: 30 - 300 mg Albumin / gram Creatinine = Micro-albuminuria range  
  Eval: >300 mg Albumin / gram Creatinine = Macro-albuminuria range  
  Eval: To establish a clinical diagnosis of microalbuminuria using these  
  Eval: ranges, see algorithm in Am J Kidney Disease (1995)25:107-112.  
  Eval: Ratio not calculated if urine albumin is <0.2 mg/dL.
```

```
=====  
Performing Lab Sites  
[605] LOMA LINDA HCS [CLIA# 05D0988208]  
      11201 BENTON ST LOMA LINDA, CA 92387-1000  
=====
```

This information is meant to provide a summary of your appointment with your health care provider. If you have any questions about your care including test results, medications, diagnoses or other concerns, please contact your health care provider. Please bring this form to your next visit as a record of your medications and alert your provider to any changes in your medications.

To contact your primary care provider, please call 909-825-8084 or 1-800-741-8387 and follow the prompts to the Module where your primary care provider is located. To refill a prescription, please call 909-777-3259 or visit www.myhealth.va.gov. For care on evenings and weekends, please call 24 hour Telephone Care at 1-877-252-4866.

Access health resources. Track your health. Refill VA prescriptions. Visit **www.myhealth.va.gov**! Ask your health care team about in-person authentication and begin ordering medications and viewing appointments through MyHealthVet. After completing in-person authentication, click on "Secure Messaging" in MyHealthVet and select "I would like to opt in to secure messaging" in order to send email messages to your providers.