

VA EMR: VistA



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VHA Is an Integrated System

- 1300 facilities across the U.S.
- 153 medical centers affiliated with 105 medical & 55 dental schools
- Trains ~ 81k health professionals annually
- Supports ~ 9k residency training positions
- 850 Community Based Outpatient Clinics
- 206 Counseling Centers
- 137 Nursing Homes
- 43 Domiciliary facilities
- ~ \$31 billion health care budget
- 198k employees (15k MD's, 56k RN's)

VHA Veteran Characteristics

- 26.5 million veterans in 2000 census
- ~ 5.5 million unique veterans patients FY 06
- ~ 50% of patients are > 65 years old
- 4.5% are female (15% of current active duty)
- Lower SES
- Multiple medical and psychiatric co-morbidities

Electronic Medical Record (VistA)

Brief History of VA VistA

(Veterans Health Information Systems & Technology Architecture)

- 1969 - clinical computer use began in VA
- 1978 - computer used in medical centers for administrative purposes
- 1982 - Congress endorses development of VA patient computer system

Brief History of VistA

- 1985 - 100 VAMC's begin using computers for labs, pharmacy, record tracking
- 1996 - computer functionality greatly expanded
- 1999 - CPRS (Computer Patient Record System), an expanded graphical user interface (GUI) adopted nationwide

Brief History of VistA

<http://www.va.gov/vista>

VistA

- All vital signs
- All hospital discharge diagnoses & procedures
- All outpatient diagnoses by clinic & visit
- All progress notes by all health professionals
- All orders
- All laboratory test results
- All radiology reports & digital x-rays

VistA

- All consultation requests & results
- All pathology reports
- All medications since ~ 1997
 - ID of patient & MD, MD specialty, clinic
 - Hospital / clinic where Rx written
 - Rx, date of dispense, # meds
 - Allergic reactions
- Procedure consents
- Medicare data (for research)
- All data is accessible from anyplace in VA system

ZZAMERICA, CAPTAIN **Visit Not Selected** Primary Care Team Unassigned
 000-00-1776 Mar 01, 1945 (62) Provider: NEBEKER, JONATHAN R

 Flag Remote Data Available Postings CWAD

Active Problems

- \$ Uncontrolled
- Venous Stasis
- Bilateral Cataracts
- \$ Dysphasia
- Varicose Veins
- Rheumtoid Rash
- Purpuric Rash

Allergies / Adverse Reactions

- Penicillin
- Leflunomide
- Demerol 100mg/MI Cartridge
- Acetaminophen
- Amiodarone
- Glutens
- Peanuts

Patient Record Flags

BEHAVIORAL

Postings

| | |
|-------------|--------------|
| Allergies | |
| Crisis Note | Jul 22, 2006 |
| Crisis Note | Feb 09, 2005 |

Active Medications

| | |
|---|--------|
| Non-VA Non Va Med Not Listed Miscellaneous | |
| Non-VA Felodipine 5mg Sa Tab | Active |
| Non-VA Folic Acid 1mg Tab | Active |
| Non-VA Aspirin 325mg Tab | Active |
| Clin Meds Calcium 500mg-Vitamin D 200unit Tab | |

Clinical Reminders

| Reminder | Due Date |
|-------------------------------------|-----------|
| SPINAL CORD INJURY ASSESSMENT | May 03,07 |
| COUNSELING | DUE NOW |
| HTN screening (NURSE) | Apr 03,07 |
| Diabetic HgA1C Monitor/Results | DUE NOW |
| GI SYMPTOMS POSITIVE | DUE NOW |
| PERSISTENT RASH | DUE NOW |
| UNEXPLAINED FEVERS | DUE NOW |
| HTN Assess for Elevated BP (MD) | Aug 18,06 |
| HBPC Medication Review | May 31,03 |
| HBPC Annual Pain Teaching | May 31,03 |
| ORYX Cognitive Impairment Screening | Dec 19,04 |
| ORYX Quality of Life Screening (NP) | Jun 05,04 |
| ORYX Quality of Life Screening (SW) | Apr 29,05 |
| ORYX Urinary Incontinence | Apr 29,05 |
| ORYX Adaptive Equipment | Nov 12,04 |
| HBPC Fall Risk (NP) | DUE NOW |

Recent Lab Results

| |
|--|
| Cbc & Morphology (with Auto Diff) Blood Wc Lb #350 |
|--|

Vitals

| | | | |
|-----|---------|--------------------|------------|
| T | 100.4 F | Jun 05, 2007 12:26 | (38.0 C) |
| P | 56 | Jun 05, 2007 12:26 | |
| R | 16 | Jun 05, 2007 12:26 | |
| BP | 250/90 | Mar 08, 2007 12:46 | |
| HT | 69 in | Feb 13, 2007 12:32 | (175.3 cm) |
| WT | 124 lb | Mar 06, 2007 12:42 | (56.2 kg) |
| PN | 6 | Jun 05, 2007 12:26 | |
| POX | 91 | Jun 05, 2007 12:26 | |
| CVP | Refused | Oct 04, 2006 12:36 | |

Appointments/Visits/Admissions

| | | |
|--------------------|-------------------------------|---------------------|
| Jun 08, 2007 12:44 | Test Clinic (non-Count) | Non-Count |
| May 30, 2007 12:50 | Test Clinic (non-Count) | Non-Count |
| May 29, 2007 16:11 | Optomety | Checked Out |
| May 18, 2007 12:56 | Test Clinic (non-Count) | Non-Count |
| May 09, 2007 10:30 | Ogden Gmc | Cancelled By Clinic |
| May 07, 2007 13:28 | Social Work 10 | Checked Out |
| May 07, 2007 08:23 | St George Ancillary/Telephone | Checked Out |
| May 01, 2007 13:07 | Pain Med/Palliative Care F/U | Action Required |
| May 01, 2007 12:30 | Test Clinic (non-Count) | Non-Count |


ZZAMERICA, CAPTAIN **Visit Not Selected** Primary Care Team Unassigned **Flag** **Remote Data Available**  **Postings CWAD**

View options

Active
 Inactive
 Both active and inactive
 Removed

New problem

Active Problems (54 of 54)

| Stat... | Description | Onset Date | Last Upda... | Location |
|---------|--|-------------|--------------|------------------|
| A (u) | Uncontrolled | | Jun 08 2007 | Test Clinic (non |
| A | Venous Stasis | 2005 | Jun 05 2007 | Test Clinic (non |
| A | Bilateral Cataracts | 2003 | May 29 2007 | Test Clinic (non |
| A (u) | Dysphasia | | May 23 2007 | Social Work 10 |
| A | Varicose Veins verified by doppler 10-1-06 | 2005 | May 01 2007 | Test Clinic (non |
| A | Rheumtoid rash | Jan 01 2006 | Mar 27 2007 | Test Clinic (non |
| A | Purpuric Rash thiasdf;hsd;kfsl;fd | | Mar 20 2007 | Mh/Rescare In |
| A | Blepharitis controlled with scrubs | Apr 01 2002 | Feb 20 2007 | Test Clinic (non |
| A | Airway Resistance DIFFICULT INTUBATION X3 WITH SURGIES | | Feb 01 2007 | Test Clinic (non |
| A | Purpuric Rash sdkf;j;sdjfk;sladjkfa;sd;sdjkfla | 2005 | Jan 16 2007 | Test Clinic (non |
| A * | Atrial Fibrillation failed cardioversion | Dec 25 2006 | Jan 09 2007 | Test Clinic (non |
| A | Intermittent Claudication | 2001 | Oct 24 2006 | Test Clinic (non |
| A | Hypertension currently controlled , goal= 120/80 | Jan 01 2001 | Oct 12 2006 | Geriatric Social |
| A | Hypertrophy (Benign) of Prostate without Urinary obstruction failed trial of alpha blocker 9-1-06 | | Oct 12 2006 | Test Clinic (non |
| A * | Cellulitis onset 2 yrs ago and recurred now | Nov 07 2005 | Oct 03 2006 | Test Clinic (non |

| | | | | | | | |
|--|------------------------------|------------------------------|------------------------------|-------------|------------------------------|--|-----------------|
| | ZZAMERICA,CAPTAIN | Visit Not Selected | Primary Care Team Unassigned | Flag | Remote Data Available | | Postings |
| | 000-00-1776 Mar 01,1945 (62) | Provider: NEBEKER,JONATHAN R | | | | | CWAD |

| Action | Outpatient Medications | Expires | Status | Last Filled | Refills Re... |
|--------|---|----------|--------------|-------------|---------------|
| | LISINOPRIL 10MG TAB Qty: 15 for 30 days Sig: TAKE ONE-HALF TABLET BY MOUTH EVERY DAY TEST LABEL | 07/15/07 | Discontinued | Jul 14,06 | 11 |
| | *ACETAMINOPHEN 325MG TAB Qty: 30 for 30 days Sig: TAKE TWO TABLETS BY MOUTH EVERY SIX (6) HOURS, IF NEEDED | 05/26/07 | Discontinued | May 25,06 | 11 |
| | ATENOLOL 50MG TAB Qty: 15 for 30 days Sig: TAKE ONE-HALF TABLET BY MOUTH EVERY DAY FOR BLOOD PRESSURE | 04/27/07 | Discontinued | Apr 26,06 | 11 |
| | LISINOPRIL 5MG TAB Qty: 30 for 30 days Sig: TAKE ONE TABLET BY MOUTH EVERY DAY TEST | 04/27/07 | Discontinued | Apr 26,06 | 11 |
| | CALCIUM 500MG/VITAMIN D 200 UNT TAB Qty: 100 for 30 days Sig: TAKE 1 TABLET BY MOUTH THREE (3) TIMES A DAY TAKE WITH FOOD | 04/27/07 | Discontinued | Apr 26,06 | 11 |
| | IPRATROPIUM BROMIDE 17MCG 200D ORAL INHL Qty: 1 for 30 days Sig: TAKE 1 PUFF BY MOUTH EVERY SIX (6) HOURS TEST | 04/26/07 | Discontinued | Apr 25,06 | 11 |
| | LEVALBUTEROL TART 59MCG 200D ORAL INHL Qty: 1 for 30 days Sig: TAKE 1 (ONE) PUFF BY MOUTH EVERY SIX (6) HOURS AS DIRECTED "SHAKE WELL" BEFORE USING AND CLEAN MOUTHPIECE WEEKLY. | 04/26/07 | Discontinued | Apr 25,06 | 11 |
| | FLUNISOLIDE 25MCG 200D NASAL INH SPRAY Qty: 1 for 30 days Sig: PLACE 1 SPRAY IN EACH NOSTRIL EVERY TWELVE (12) HOURS | 04/26/07 | Discontinued | Apr 25,06 | 11 |
| | CALCIUM CARBONATE 650MG (CA 260MG) TAB Qty: 90 for 30 days Sig: TAKE ONE TABLET BY MOUTH THREE (3) TIMES A DAY, WITH FOOD | 04/26/07 | Discontinued | Apr 25,06 | 11 |
| | PAPAVERINE 30MG/ML INJ 10ML Qty: 600 for 30 days Sig: INJECT 1 ML INTRAVENOUS IF NEEDED | 04/20/07 | Discontinued | Apr 19,06 | 11 |
| | ASPIRIN 325MG EC TAB Qty: 30 for 30 days Sig: TAKE ONE TABLET BY MOUTH EVERY DAY TAKE WITH FOOD | 02/22/07 | Expired | Jan 23,07 | 0 |

| Action | Non-VA Medications | Start Date | Status |
|--------|---|------------|--------|
| | Non-VA NON VA MED NOT LISTED MISCELLANEOUS XANGO MISCELLANEOUS Patient wants to buy from Non-VA pharmacy. | 08/03/06 | Active |
| | Non-VA FOLIC ACID 1MG TAB 1MG MOUTH EVERY DAY Non-VA medication recommended by VA provider. | 06/06/06 | Active |
| | Non-VA ASPIRIN 325MG TAB 325MG MOUTH EVERY DAY Non-VA medication not recommended by VA provider. Non-VA medication | | Active |

| Action | Inpatient Medications | Stop Date | Status | Location |
|--------|--|-----------|--------|----------------------------|
| | CALCIUM 500MG-VITAMIN D 200UNIT TAB Give: 1 TABLET PO BID (2XDAILY) | 11/01/07 | Active | Hemodialysis/In-Center 60. |

ZZAMERICA,CAPTAIN **Visit Not Selected** Primary Care Team Unassigned
 000-00-1776 Mar 01,1945 (62) Provider: NEBEKER,JONATHAN R

 Flag Remote Data Available Postings CWAD

View Orders Active Orders (includes Pending & Recent Activity) - ALL SERVICES

| Service | Order | Start / Stop | Provider | Nurse | Clerk | Chart | Status | Location |
|--------------|---|---|-------------|-------|-------|-------|------------|----------|
| A/D/T | >> please write ADT order for acute4 medicuine admission | Start: 05/09/07 15:25 | Crockett,R | | | | active | Acute I |
| | >> per dr smith/ bob please order stat labs cbc, ptt,pt, trop and a pcxr. | Start: 05/09/07 15:25 | Crockett,R | | | | active | Acute I |
| | >> Per Dr, Smith please order labs & pcxr. cbc/pt/chem-14 & T & C. | Start: 01/25/07 12:00 | Crockett,R | | | | active | Micu |
| Nursing | >> TESTING ALERTS | Start: 06/15/07 14:17 | Crockett,R | | | | active | Acute I |
| | >> GERTIE | Start: 03/08/07 10:17 | Crockett,R | GG | | | active | 3-West |
| | >> Nursing Transfuse ordered blood now | Start: 01/24/07 15:28 | Crockett,R | | JL | | active | Micu |
| Out. Meds | ASCORBIC ACID INJ 500MG/1ML IV 2XWEEK for ugly *UNSIGNED* | | Chadwick,L | | | | unreleased | Test Cl |
| | *METHOCARBAMOL 750MG TAB 750MG TAKE TWO TABLETS BY MOUTH EVERY SIX (6) HOURS TEST LABEL Quantity: 240 Refills: 0 | Start: 05/04/05 Stop: 06/03/05 | Anderson,G | | | | renewed | Pharma |
| Non-VA Me | Non-VA ASPIRIN 325MG TAB 325MG TAKE ONE TABLET BY MOUTH EVERY DAY Non-VA medication not recommended by VA provider. Non-VA medication recommended by VA provider. Patient wants to buy from Non-VA pharmacy. | | Macdonald,D | | | | active | Test Cl |
| | Non-VA FOLIC ACID 1MG TAB 1MG TAKE ONE TABLET BY MOUTH EVERY DAY Jun 06, 2006 Non-VA medication recommended by VA provider. | Start: 06/06/06 | Cannon,G | | | | active | Pocate |
| | Non-VA FELODIPINE 5MG TAB,SA 5MG TAKE TWO TABLETS BY MOUTH EVERY DAY Non-VA medication recommended by VA provider. | | Macdonald,D | | | | active | Ortho |
| | Non-VA NON VA MED NOT LISTED MISCELLANEOUS XANGO MISCELLANEOUS Aug 03, 2006 Patient wants to buy from Non-VA pharmacy. | Start: 08/03/06 Stop: 11/08/06 08:14 | Carlson,S | | | | active | Test Cl |
| Clinic Order | CALCIUM 500MG-VITAMIN D 200UNIT TAB CALCIUM 500MG/VITAMIN D 200 UNT TAB ONE TABLET PO BID (2XDAILY) | Start: 11/01/06 10:48 Stop: 11/01/07 10:48 | Macdonald,D | | | | active | Hemoc |
| Lab | CBC & MORPHOLOGY (WITH AUTO DIFF) BLOOD SP *UNSIGNED* | Start: 12/05/07 | Chadwick,L | | | | unreleased | Test Cl |
| | CBC & MORPHOLOGY (WITH AUTO DIFF) BLOOD SP LB #378790 | Start: 06/05/07 | Carlson,S | | | | pending | Test Cl |

Medication Order



FLUVASTATIN NA 20MG CAP,ORAL

Change

| Dosage | Complex | Route | Schedule |
|--------|---------|------------|---|
| 20MG | 0.2439 | PER J TUBE | W/EVENING MEAL <input type="checkbox"/> PRN |
| 20MG | 0.2439 | ORAL | QPM(EVENING) |
| 40MG | 0.4878 | PER J TUBE | QSHIFT |
| | | | QWEEK |
| | | | REMOVE-AM PLACE-PM |
| | | | SEE RESP..ORDERS |
| | | | STAT |
| | | | TID (3xDAILY) |
| | | | TID AC (3xDAILY) |
| | | | TID PC (3xDAILY) |

Comments:

Days Supply: 30
 Qty (CAP): 30
 Refills: 0

Pick Up: Clinic Mail Window

Priority: ROUTINE

Patient Instruction

"For Cholesterol reduction".

*R: PAT's on CYP3A4 inhibitors(CYCLOSPOR,PROTEASE)or Myositis.

FLUVASTATIN NA 20MG CAP,ORAL 20MG
 TAKE 1 CAPSULE BY PER J TUBE WITH EVENING MEAL "For Cholesterol reduction".
 Quantity: 30 Refills: 0

Accept Order

Quit

Available Reports

- Imaging (local only)
- Procedures (local only)
- Graphing (local only)
- Med Admin History (BCMA)
- Med Admin Log (BCMA)**
- Lab Status
- Blood Bank Report
- ⊕ Anatomic Path Reports
- Vitals Cumulative
- Outpatient RX Profile
- Dietetics Profile
- Nutritional Assessment
- Daily Order Summary
- Order Summary for a Date Range
- Chart Copy Summary
- Surgery (local only)
- ⊕ Event Capture

Date Range

- Date Range...
- Today
- One Week Back
- Two Weeks Back
- One Month Back
- Six Months Back
- One Year Back
- T-180 to T**

Med Admin Log (BCMA) [From: Dec 17,2006 to Jun 15,2007]

Medication Log Report

Continuing/PRN/Stat/One Time Medication/Treatment Record (Detailed Log) (VAF 10-2970 B, C, D) Run Date: JUN 15, 2007
 Log Type: INDIVIDUAL PATIENT P

Patient: ZZAMERICA,CAPTAIN SSN: 000-00-1776 DOB: MAR 1,1945 (62)
 Sex: MALE Ht/Wt: 175cm/55kg Ward: Rm
 Dx: Last Mvmt: Type:

ADRs: AMIODARONE, SEPTRA DS

Allergies: ACETAMINOPHEN, ALMONDS, DEMEROL 100MG/ML CARTRIDGE, GLUTENS, LEFLUNOMIDE, LIDOCAINE/POVIDONE IODINE, LISINAPRIL
 MORPHINE, NUTS, PEANUTS, PENICILLIN

| Activity Date | Orderable Item | Action | Action | Drug/Additive/Solution | U/Ord | U/Gvn | Unit |
|---------------|-----------------------------|--------|-----------|------------------------|-------|-------|------|
| Start Date> | [Dose/Sched/Route/Inj Site] | By | Date/Time | | | | |
| Stop Date< | | | | | | | |

| | | | | | | | |
|-------------------|---|------|----------------|--|------|------|-----|
| 01/25/07 09:29 | ALBUTEROL 3/IPRATROP 0.5MG/3ML [1 VIAL (3 MLs) Q6H PRN INHL] | DJRM | 01/25/07 09:29 | | | | |
| | | | Given | | | | |
| 1/25/07 09:28> | | | | ALBUTEROL 3/IPRATROP 0.5MG/3ML INHL 3ML | 1.00 | 1.00 | 3ml |
| | PRN Reason: cough | | | | | | |
| | PRN Effectiveness: <No PRN Effectiveness Entered> | | | | | | |
| | Comments: <No Comments> | | | | | | |
| 1/25/07 16:11:05< | | | | | | | |
| | Audits: <No Audits> | | | | | | |

ZZAMERICA,CAPTAIN 000-00-1776 Ward: Room

| | | | | | | | |
|--|-------------------------------|-------------------------------|------------------------------|-------------|-----------------------|--|-------------------------|
| | ZZAMERICA, CAPTAIN | Visit Not Selected | Primary Care Team Unassigned | Flag | Remote Data Available | | Postings CWAD |
| | 000-00-1776 Mar 01, 1945 (62) | Provider: NEBEKER, JONATHAN R | | | | | |

Last 100 Signed Notes

- All signed notes
- Jun 15,07 PRIMARY-CARE PROVIDER ESTABLISH
- Jun 11,07 INTEGRATIVE HEALTH F/U, IH/AQUATI
- Jun 11,07 ADMINISTRATIVE NOTE, IH/AQUATICS
- Jun 08,07 PRIMARY-CARE PROVIDER ESTABLISH
- Jun 04,07 ENT CONSULT, TEST CLINIC (NON-COU
- Jun 01,07 IMED CONSENT DOCUMENT, ** No Loc
- May 31,07 MH SUBSTANCE ABUSE GENERAL NO
- May 30,07 MH BEHAVIORAL MEDICINE NEW, TES**
- May 24,07 ADMINISTRATIVE NOTE, TEST CLINIC
- May 23,07 ADMINISTRATIVE NOTE, PRIMARY CAF
- May 23,07 ADMINISTRATIVE NOTE, PRIMARY CAF
- May 23,07 ADMINISTRATIVE NOTE, PRIMARY CAF
- May 21,07 EYE OPTOMETRY CLINIC NOTE, TEST
- May 18,07 ACUTE MEDICINE NURSING SHIFT ASS
- May 18,07 PRIMARY-CARE PROVIDER ESTABLISH
- May 15,07 3-W NURSING SHIFT ASSESSMENT, TI
- May 14,07 ACUTE MEDICINE NURSING SHIFT ASS
- May 09,07 MH 3A MEDICAL NOTE, TEST CLINIC (N
- May 09,07 ZTEST, TEST CLINIC (NON-COUNT), RII

Visit: 05/30/07 MH BEHAVIORAL MEDICINE NEW, TEST CLINIC (NON-COUNT), LARRY CHADWICK (May 30,07@13:12)

LOCAL TITLE: MH BEHAVIORAL MEDICINE NEW
 STANDARD TITLE: MENTAL HEALTH NOTE
 DATE OF NOTE: MAY 30, 2007@13:12 ENTRY DATE: MAY 30, 2007@13:13:24
 AUTHOR: CHADWICK, LARRY EXP COSIGNER:
 URGENCY: STATUS: COMPLETED

Suicidal / Para-Suicidal Event
 ZZAMERICA, CAPTAIN 230 W 430 S
 SANDY, UTAH 84093
 Home Phone: (608)234-5678

SSN: 000-00-1776
 DOB: MAR 1, 1945 (62)

Date/Time of event: May 29, 2007@13:00
 Location of event: On station
 Patient status at time of event:
 Outcome of event:

/es/ LARRY CHADWICK
 Flower Power Ranger
 Signed: 05/30/2007 13:21

Templates

- Shared Templates
 - 1 Patient Data Objects
 - 1 Scanned document
 - 2 FOR REVIEW
 - 2 vital signs
 - Administrative
 - Anesthesia
 - Anticipated Discharge Date - QM
 - Audiology

Encounter

New Note

ESTABLISHED PATIENT Expanded Problem Focused Visit
 Diagnoses: Uncontrolled (Primary)

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

Comment Added to Consult RHEUMATOLOGY

Next

- Lab Results
- Most Recent
- Cumulative
- All Tests By Date
- Selected Tests By D
- Worksheet
- Graph
- Microbiology
- Anatomic Pathology
- Blood Bank
- Lab Status

Laboratory Results - Worksheet - All Results

Table Format: Horizontal Vertical

Other Formats: Comments Graph

Abnormal Results Only Zoom 3D Values

| Date/Time | Specimen | WBC | HCT | MCV | PLT | NEUT.% | BANDS% | LYMPH% | NA | K | CL | CO2 | UREA N | CREAT | GLUC |
|----------------|----------|-----|------|------|------|--------|--------|--------|--------|--------|----|-----|--------|-------|-------|
| 05/02/07 08:05 | Blood | 5 | 44 | 50 L | 50 L | 50 | | | | | | | | | |
| 01/24/06 15:02 | Plasma | | | | | | | | | | | | | | 100 |
| 01/10/06 15:29 | Plasma | | | | | | | | 200 H* | | | | | | |
| 01/10/06 15:26 | Plasma | | | | | | | | | 4.0 | | | | | |
| 01/10/06 15:23 | Blood | | 24 L | | | | | | | | | | | | |
| 01/10/06 15:09 | Plasma | | | | | | | | 112 L* | 3.5 L | | | | | |
| 01/10/06 15:00 | Plasma | | | | | | | | | 3.5 L | | | | | |
| 09/12/03 11:51 | Serum | | | | | | | | | | | | | | 175 H |
| 06/10/03 15:29 | Blood | | 27 L | | | | | | | | | | | | |
| 08/20/02 10:08 | Serum ** | | | | | | | | | 4.5 | | | | | |
| 08/01/01 09:11 | Serum ** | | | | | | | | | 7.0 H* | | | | | |

Other Tests

- Date Range
- Date Range...
 - Today
 - One Week
 - Two Weeks
 - One Month
 - Six Months
 - One Year
 - Two Years
 - All Results

Aug 20, 2002@10:08 ** Comments:
 DISREGARD THIS VALUE. FOR TESTING PURPOSES.

Aug 01, 2001@09:11 ** Comments:
 TEST PATIENT

CPRS Graphing - Patient: Zzamerica, Captain

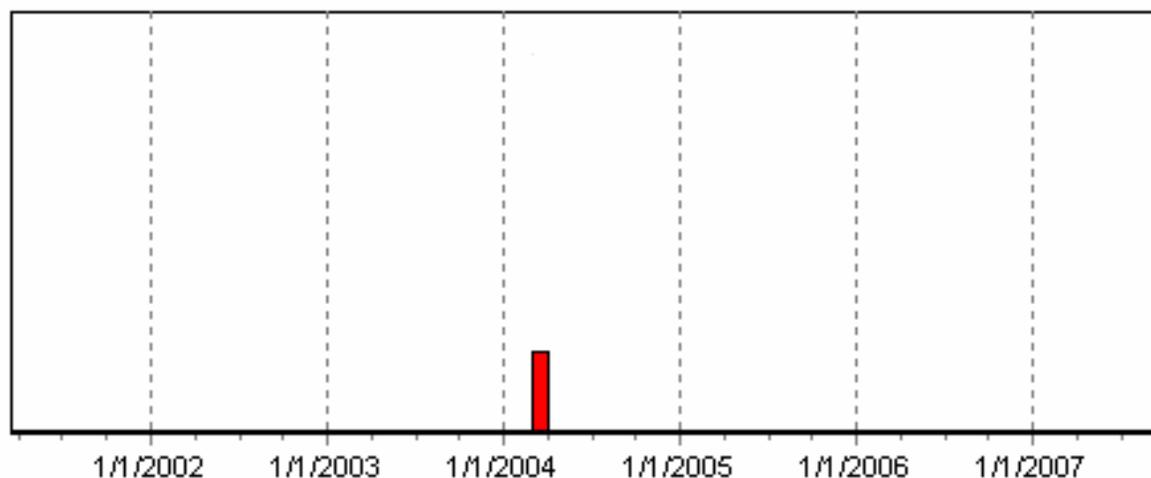


View: Individual Graphs

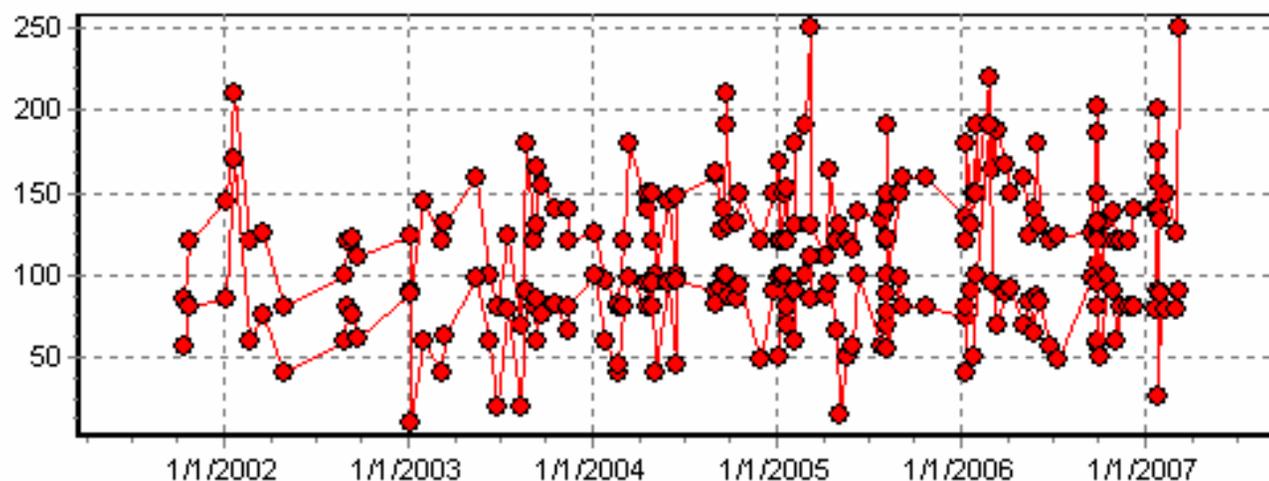
<view1>

| Item | Type |
|-----------------------|-------|
| Hand | Rad |
| Hip Films In The ... | Rad |
| Knee Series | Rad |
| Lumbar Spine Ser... | Rad |
| Mri Brain Wo Con... | Rad |
| Mri Brain Wo&w C... | Rad |
| Myocardial Infarct... | Rad |
| Myocardial Perfus... | Rad |
| Myocardial Perfus... | Rad |
| Nm Renal Scan (f... | Rad |
| Renal Scan (dtpa... | Rad |
| Rest Muga | Rad |
| Skull Series | Rad |
| Tibia & Fibula | Rad |
| Unlisted Musculo... | Rad |
| Us Abdomen | Rad |
| Body Mass Index | Vital |
| Central Venous Pr... | Vital |
| Circumference/Gi... | Vital |
| Height | Vital |
| Pain | Vital |
| Pulse | Vital |
| Pulse Oximetry | Vital |
| Respiration | Vital |
| Temperature | Vital |
| Weight | Vital |

■ Lisinopril 40mg Tab



◆ Blood Pressure



Date Range: All Results

Split Views

Select/Define...

Settings...

Close

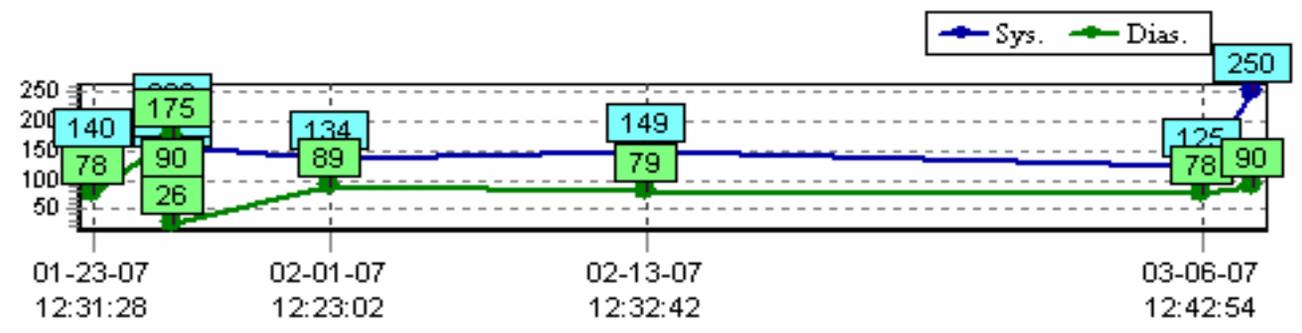
File Help

ZZAMERICA,CAPTAIN
000-00-1776 Mar 01,1945 (62)

Hospital Location:
From - To: 12/14/06 - 06/

Entered in Error Enter Vitals Allergies

- Six Months
- One Year
- Two Years
- Values
- Time Scale
- 3D
- Allow Zoom



B/P

| | 03-13-07 12:44:42 | 05-15-07 12:42:40 | 05-29-07 12:28:55 | 06-01-07 12:47:00 | 06-05-07 12:26:22 |
|---------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Temp: | 101* | 100 | 100.8 | 98.6 | 100.4 |
| Pulse: | | | 89 | 73 | 56* |
| Resp: | | | | | 16 |
| P O ₂ %: | | | 89* | | 91 |
| L/Min/%: | | | 4 | | 3 |
| B/P: | | | | | |
| Wt (lbs): | | | | | |
| BMI: | | | | | |
| Ht (in): | | | | | |
| C/G: | | | | | |
| CVP (cmH2O): | | | | | |
| In 24hr (ml): | | | | | |
| Out 24hr (ml): | | | | | |
| Pain: | | | 6 | | 6 |
| Location: | TEST CLINIC (NOI | TEST CLINIC (NOI | TEST WARD | TEST CLINIC (NOI | TEST CLINIC (NOI |
| Entered By: | CHADWICK,LARR | CHADWICK,LARR | CARLSON,SHARC | WELLER,LINETTE | CARLSON,SHARC |

Available Reminders

View Action

Available Reminders

Due Date

Last Occurren...

Priority

Due

SPINAL CORD INJURY ASSESSMENT
 COUNSELING
 HTN screening (NURSE)
 Diabetic HgA1C Monitor/Results
 GI SYMPTOMS POSITIVE
 PERSISTENT RASH
 UNEXPLAINED FEVERS
 HTN Assess for Elevated BP (MD)
 HBPC Medication Review
 HBPC Annual Pain Teaching
 ORYX Cognitive Impairment Screening
 ORYX Quality of Life Screening (NP)
 ORYX Quality of Life Screening (SW)
 ORYX Urinary Incontinence
 ORYX Adaptive Equipment
 HBPC Fall Risk (NP)

05/03/2007 05/03/2006
 DUE NOW
 04/03/2007 10/02/2006
 DUE NOW
 DUE NOW
 DUE NOW
 DUE NOW
 08/18/2006 02/16/2006
 05/31/2003 05/31/2002
 05/31/2003 05/31/2002
 12/19/2004 12/19/2003
 06/05/2004 06/05/2003
 04/29/2005 04/29/2004
 04/29/2005 04/29/2004
 11/12/2004 11/12/2003
 DUE NOW

Applicable

Barriers to learning
 ADVANCE DIRECTIVE DISCUSSION
 WEIGHT MONITORING (HEART FAILURE)

01/22/2008 01/22/2007
 10/02/2007 10/02/2006
 10/02/2007 10/02/2006

Reminder Resolution: * Colorectal Cancer Screen

Patients age 50 and older should have Fecal Occult Blood test (FOBT) consisting of three samples yearly, and/or a Flex Sigmoidoscopy every 5 years for early detection of Colorectal Cancer.

FECAL OCCULT BLOOD (FOBT)YEARLY - Document FOBT Lab Test Ordered, FOBT Cards given to patient, Past FOBT Lab Test Done, or FOBT Declined.

- ORDER OCCULT BLOOD (FECAL) LAB TEST
- FOBT CARDS X 3 GIVEN TO PATIENT
- PATIENT HAD PREVIOUS FOBT LAB TEST DONE
- PATIENT DECLINED HAVING FOBT LAB TEST

FLEX SIGMOIDOSCOPY EVERY 5 YEARS - Document Flex Sigmoidoscopy Consult Order, Past Flex Sigmoidoscopy Done, or Flex Sigmoidoscopy Declined.

- ORDER FLEX SIGMOIDOSCOPY
- PATIENT HAD PREVIOUS SIGMOIDOSCOPY TEST DONE
- PATIENT DECLINED HAVING FLEX SIGMOIDOSCOPY DONE

COLONOSCOPY - PREVIOUSLY DONE

PATIENT HAD PREVIOUS COLONOSCOPY TEST DONE

Location:

Date: *

Comment:

PATIENT HAS LIFE EXPECTANCY LESS THAN 6 MONTHS

- Clear
- Clinical Maint
- Visit Info
- < Back
- Next >
- Finish
- Cancel

CLINICAL REMINDER ACTIVITY

* Colorectal Cancer Screen:

Patient had Colonoscopy test done previously.

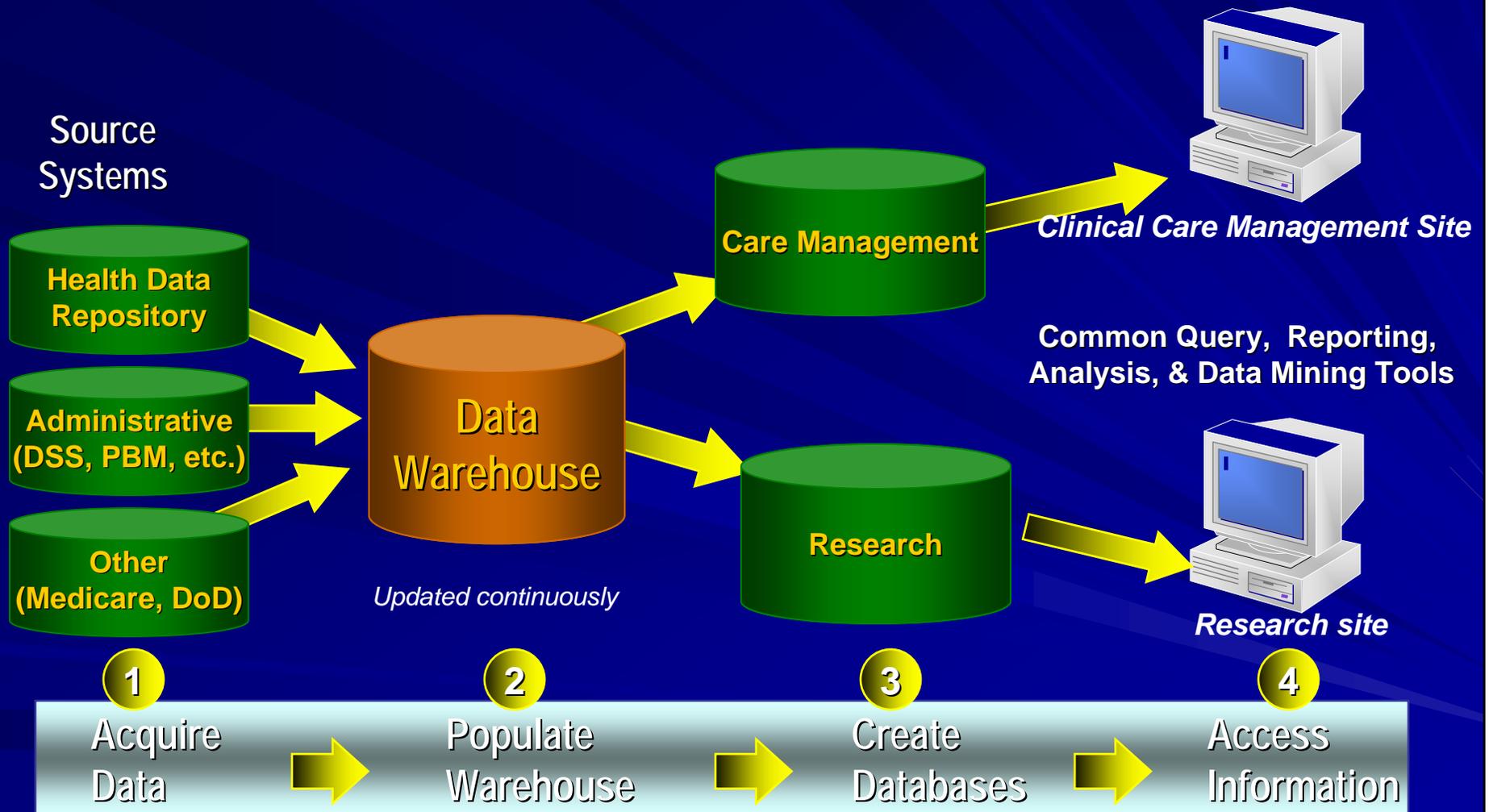
Location: OUTSIDE VA LOCATION

Date: January 1, 2004

Health Factors: COLONOSCOPY DONE ELSEWHERE (Historical)

* Indicates a Required Field

VHA Corporate Data Warehouse



Strengths

- Administrative data facilitates organizational evaluation & efficiency
- Medical data facilitates medical care
- Facilitates use of remote electronic & web based technologies to improve care
- Facilitates national policy implementation

Weaknesses

- Large organization size inhibits innovation
- Only limited clinical information is readily available for research & analyses
- Existence of large datasets increases vulnerability to unintended data loss

References

- Brown SH et al. VistA International J Med Informatics 2003;69:135-156
- Patterson ES et al. Barriers to clinical reminders ... J Biomedical Informatics 2005;38:189-199
- Doebbeling BN et al. Using IT to improve evidence based practice ... J Gen Intern Med 2006;21:S50-57

