

# Chapter 9

## Tests, Procedures, and Diagnosis Codes

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# Overview



# Overview

- ❖ Entire ICD-9 and CPT dictionaries are installed in SpringCharts database
- ❖ SpringCharts comes installed with a limited activated list of the current year's diagnosis and procedure codes
- ❖ SpringCharts comes installed with a limited activated list of lab, imaging, and medical tests
- ❖ Additional Dx codes, CPT codes and tests can be activated from the dictionary files

# 1. Ordering a Test



# 1. Ordering a Test

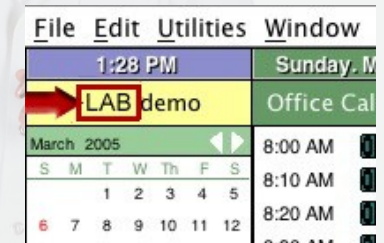
- ❖ The term “tests” includes Lab Tests, Imaging Tests and Medical Tests
- ❖ Ordered tests are stored in the *Pending Tests* area where the results can be entered manually or automatically
- ❖ Pending Tests with results are sent to the *Completed Tests* area for the physician’s viewing
- ❖ Tests that have been viewed by the physician are permanently filed in the patient’s chart in the care tree diagram
- ❖ Tests can be ordered either from within the **Patient’s Chart** or within the **Office Visit** screen

# 2. SpringLabs™ & Reference Lab Results



# 2. SpringLabs & Reference Lab Results

- **SpringLabs** is an optional lab interface that automatically receives lab results electronically from lab companies
- Users are notified of newly received results by a **LAB** icon next to the user's login name



Test Performed at:  
Spectrum Laboratory Network  
4380 Federal Dr Suite 100  
Greensboro, NC 27410

Patient: Adams, Patti G  
DOB: 06/29/1942  
Gender: M

Ordering Physician  
Acct No: 444051  
Lab Specimen No: A525152369

Complete Blood Count (CBC) Test Date: 10/13/2003

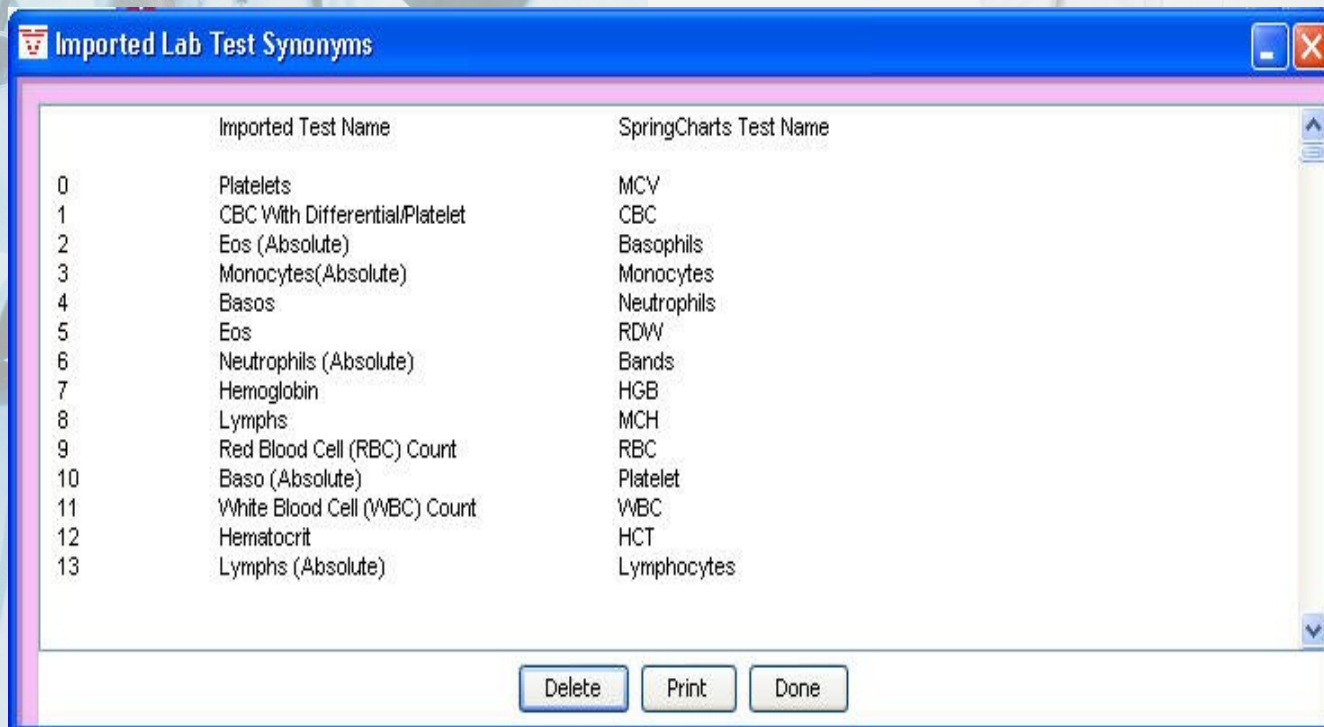
Test Name	In Range	Out Of Range	Reference Range	UOM
WBC	5.6		4.0-10.5	K/μL
RBC		5.83	H 4.22-5.81	MIL/μL
HGB		12.9	L 13.0-17.0	g/dL
HCT	45.0		39.0-52.0	%
MCV	80.0		78.0-100.0	fL
MCHC	34.6		32.0-36.0	g/dL
RDW	12.4		11.5-14.6	%
Platelet Count	350		150-400	K/μL

Buttons: Change Pt, Match, Force Enter, Delete, Print, Copy, Done

# 2. SpringLabs™ & Reference Lab Results

## ➤ Manage Test Name Synonyms

- ❖ A unique feature with the ability to “learn” the way a practice prefers to receive results
- ❖ SpringLabs will match the patient’s name, test name, and test analyte and remember these for next time



The screenshot shows a software window titled "Imported Lab Test Synonyms". It contains a table with two columns: "Imported Test Name" and "SpringCharts Test Name". The table lists 14 rows of data, each with a row number from 0 to 13. At the bottom of the window, there are three buttons: "Delete", "Print", and "Done".

	Imported Test Name	SpringCharts Test Name
0	Platelets	MCV
1	CBC With Differential/Platelet	CBC
2	Eos (Absolute)	Basophils
3	Monocytes(Absolute)	Monocytes
4	Basos	Neutrophils
5	Eos	RDW
6	Neutrophils (Absolute)	Bands
7	Hemoglobin	HGB
8	Lymphs	MCH
9	Red Blood Cell (RBC) Count	RBC
10	Baso (Absolute)	Platelet
11	White Blood Cell (WBC) Count	WBC
12	Hematocrit	HCT
13	Lymphs (Absolute)	Lymphocytes

# 2. SpringLabs™ & Reference Lab Results

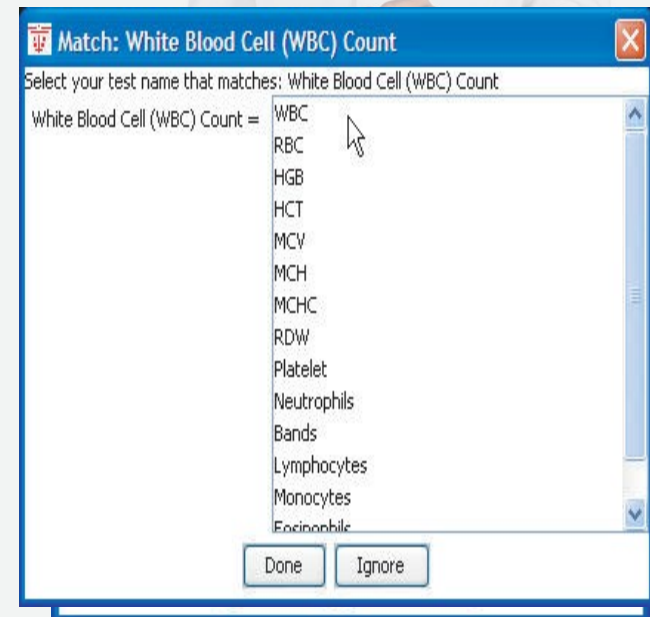
## ➤ Processing the Received Test Result

❖ Imported Lab data is required to be reconciled to the patient's Pending Test:

- ✓ Match to the Patient
- ✓ Match to the Pending Test
- ✓ Match to the Test's Analytes

❖ After reconciling the Imported Test data to the Pending Test, the test results are sent directly into the Patient's Chart

❖ **'Force Enter'** is used only when SpringLabs does not recognize the Patient or the Pending Test



# 3. Processing and Charting Tests



# 3. Processing and Charting Tests

- ❖ Results can be entered into the Pending Test manually
- ❖ Lab results can be entered automatically through SpringLabs
- ❖ Test results can be copied and pasted in from reports received electronically
- ❖ Add tech's signature and facility to test result window
- ❖ Perform administrative functions from test window - Messages & Todos

12/09/2006 CBC

Pt: Sykes, Chris J 01

MCH	27	Normal: 25.0-31.0 pg
MCHC	25.5	Normal: 32.0-36.0 g/dl
RDW	12	Normal: 11.5-15.0 %
Platelet	350	Normal: 150.0-450.0 k/ml
Neutrophils	53	Normal: 34.0-56.0 %
Bands	1.5	Normal: 0.0-5.0 %
Lymphocytes	57	Normal: 28.0-65.0 %
Monocytes	8.4	Normal: 1.7-9.3 %
Eosinophils	5	Normal: 0.0-6.0 %
Basophils	1.75	Normal: 0.0-2.0 %

iosmnd

Guest Diag: [ ]

ID Number: [ ]

Test Note: [ ]

Pending  
 Partial  
 Complete  
 Dr Viewed

Done  
Cancel  
Delete  
ToDo  
Message  
Get Chart

02/26/2007 MRI Of Brain w&w/oContrast

Pt: Adams, Allan R 05/05/55

Date Ordered: 02/26/2007  
Date Charted: 02/26/2007  
Date of Test: [ ]

iosmnd

MRI Of The Ozarks

ID Number: [ ]

Test Note: [ ]

Physician Interpreting: Body, Able I M. D.

Pending  
 Partial  
 Complete  
 Dr Viewed

Done  
Cancel  
Delete  
ToDo  
Message  
Get Chart

# 3. Processing and Charting Tests

- ❖ Abnormal results automatically highlighted for physician
- ❖ Physician views Completed Test and then stored in patient's chart
- ❖ Automated Test Status Alerts in chart displaying pending or completed tests

The screenshot displays a medical charting application window for a patient named Adams, Patti G. The interface is divided into several sections:

- Patient Information:** Adams, Patti G 06/29/42, Age: 67 yrs 5 mns 12 days, 196 Elm St, Sherman, TX 77521. Includes contact information and marital status.
- Allergies:** Demerol, Codeine; Other Sensitivities: Causes Low BP, Causes Nausea.
- PMHX (Past Medical History):** DM, Adult Onset, NID, Controlled 250.00; HTN 401.9; Depression - Recurrent 296.32; Hyperglycemia 790.6; Pneumonia, Bacterial 482.89; Type 2 diabetes for 10 years; Hospitalized March 2006 Hyperglycemia; Hospitalized once for Pneumonia; Last Tetanus 2004; Influenza Vaccine 10/05.
- FMHX (Family Medical History):** Lung CA 162.9; Father CA of the Lung (contributing factor).
- Social History:** Alcohol: Occasionally; Nonsmoker; Wears seat belt 100%.
- Chart Note:** Friend of Mrs Bibi.
- Problem List:** DM, Adult Onset, NID, Controlled 250.00; Hypercholesterolemia 272.0; Depression - Recurrent 296.32; HTN 401.9; josmd 09/26/2007 11:32 AM.
- Routine Meds:** Lipitor 10mg i po q am; Aleve 275 mg i q 12 hrs; Aspirin 325mg ii po qid prn; HCTZ 12.5mg i q am; Lopressor 100 mg i po bid; Wellbutrin XL 300mg i po q am; Glyburide 2.5 mg i po bid; OTC Meds: fish oil, glucosamine.
- Default Pharmacy:** Walshoph Pharm, 2147677766.
- Uncharted Tests:** Pending: 07/22/2009 CBC; Pending: 05/11/2009 UA; Pending: 05/11/2009 Stress Test.
- Chart Evaluation:** Done Everyone Age 14 yrs to 105 yrs DT every 520 wks; Pt Res; Done Females Age 35 yrs to 110 yrs Mammogram every 52 wks; Not Done Everyone Age 35 yrs to 105 yrs EKG every 104 wks; P.
- Diagnosis Hx:** 07/31/2007 Pain Disorder-Psych + Med 307.89; 01/16/2005 Well Adult v70.0; 01/09/2005 Viral Syndrome 079.99; 12/27/2004 Flu 487.1; 12/21/2004 Allergic Rhinitis 477.9; 04/26/2003 HTN 401.9; 04/26/2003 DM, Adult Onset, NID, Controlled 250.00; 04/26/2003 Hypercholesterolemia 272.0; 12/16/02 Insect Bite, Nonvenomous 919.4; 12/16/02 Cellulitis 682.9.
- Alert: Anticoagulant:** A red alert banner is visible at the top right of the chart area.
- Lab Test List:** A separate window on the right shows a list of lab tests with a red bracket highlighting several entries: 04/17/2007 Lipid Panel, 04/17/2007 CBC, 01/09/2005 CBC, 01/09/2005 SMAC, 12/15/2004 CBC, 04/15/2002 TSH, 04/15/2002 T4 Thyroxine Total, 04/26/2003 CBC, 04/26/2003 SMAC, 04/26/2003 Lipid Panel, and 04/26/2003 HGBA1C.
- Photo:** A portrait photo of a woman with blonde hair is displayed at the bottom right of the chart area.

# 4. Creating a Test Report



# 4. Creating a Test Report

❖ Test Results cannot be changed once charted

❖ Test Results appear in the Lab

❖ A *Test Report* is generated and can be added to the patient's chart

Elimination Reports

enables the provider to view and print the report

The screenshot shows a medical software interface. On the left, a 'New Report' window displays test results for a '04/17/2007 Lipid Panel'. On the right, a main window shows a list of lab tests under the 'Lab' category, with '04/17/2007 Lipid Panel' circled in red. Below the list, a detailed report for the selected test is shown, including patient information, test results, and a note.

**Alert: Anticoagulant**

- Encounters
- Immunizations
- Medications
- Lab
  - 04/17/2007 Lipid Panel**
  - 04/17/2007 CBC
  - 01/09/2005 CBC
  - 01/09/2005 SMAC
  - 12/15/2004 CBC
  - 04/15/2002 TSH
  - 04/15/2002 T4 Thyroxine Total
  - 04/26/2003 CBC
  - 04/26/2003 SMAC
  - 04/26/2003 Lipid Panel
  - 04/26/2003 HGBA1C

**New Report**

04/17/2007 Lipid Panel  
Cholesterol: 31.0 No  
HDL Cholesterol: 35.0  
LDL Cholesterol: 93.0  
Triglycerides: 157.0  
Chol/HDL Ratio: 0.0

Test Description: These for importance is in determinin cholesterol and Triglycerid strokes. A high HDL chole disease and strokes.

The ratio of total cholesterol calculation which yields a

Problems:  
Elevated Cholesterol.

Recommendations:  
Low cholesterol diet.  
Regular exercise program.  
Please make an appointme

**04/17/2007 Lipid Panel**

Cholesterol	31.0	Normal: 5.0-40.0 mg/dl
HDL Cholesterol	35.0 L	Normal: 40.0-59.0 mg/dl
LDL Cholesterol	93.0	Normal: 0.0-99.0 mg/dl
Triglycerides	157.0 H	Normal: 0.0-149.0 mg/dl
Chol/HDL Ratio	0.0	Normal: 0.0-4.0

Tech: josmd  
Test Facility: Coastal Diagnostic Labs  
Reported: 04/17/2007 Last Modified: 09/26/2007  
ID#: ImportedLab  
Note: HDL Cholesterol note: \*\*Effective April 23, 2007 the reference\*\*

intervals will be changing to: 40 - 999999

Print X

# 5. Automated Test Status Alerts



# 5. Automated Test Status Alerts

- ❖ Pending & Completed Test are itemized in the Face Sheet of the Patient's Chart
- ❖ Pending & Completed Tests are itemized in the Office Visit screen

The screenshot displays a medical software interface for a patient named Patti G Adams. The window title is "OV 12/10/2009". The interface is divided into several sections:

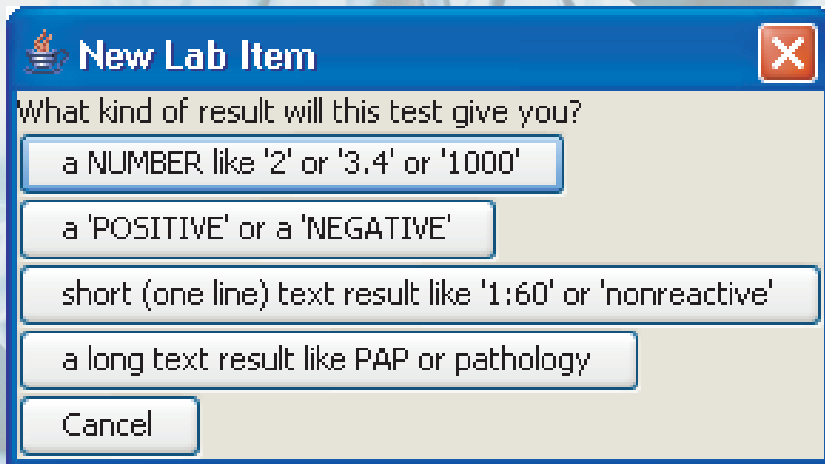
- Header:** "Pt: Adams, Patti G 06/29/42", "Chief Complaint", "Date: 12/10/2009 last mod: 12/10/2009".
- Left Panel:** Contains patient history and current medications.
  - HTN 401.9:** jmsmd 09/26/2007 11:32 AM
  - Routine Meds:** Lipitor 10mg i po q am, Aleve 275 mg i q 12 hrs, Aspirin 325mg ii po qid prn, HCTZ 12.5mg i q am, Lopressor 100 mg i po bid, Wellbutrin XL 300mg i po q am, Glyburide 2.5 mg i po bid.
  - OTC Meds:** fish oil, glucosamine
  - Default Pharmacy:** Walshop Pharm, 2147677766
  - Uncharted Tests (highlighted with a red box):** Pending: 07/22/2009 CBC, Pending: 05/11/2009 UA, Pending: 05/11/2009 Stress Test
  - Chart Evaluation:** Done Everyone Age 14 yrs to 105 yrs DT every 520 wks Pt, Done Females Age 35 yrs to 110 yrs Mammogram every 52, Not Done Everyone Age 35 yrs to 105 yrs EKG every 104 wks
  - Diagnosis Hx:** 07/31/2007 Pain Disorder-Psych + Med 307.89, 01/16/2005 Well Adult v70.0, 01/09/2005 Viral Syndrome 079.99, 12/27/2004 Flu 487.1, 12/21/2004 Allergic Rhinitis 477.9, 04/26/2003 HTN 401.9, 04/26/2003 DM, Adult Onset,NID, Controlled 250.00, 04/26/2003 Hypercholesterolemia 272.0, 12/16/02 Insect Bite, Nonvenomous 919.4, 12/16/02 Cellulitis 682.9, 09/12/02 Allergic Rhinitis 477.9
- Right Panel:** "12/10/2009 Office Visit".
  - Subjective:** Follow-Up. Pt reports symptoms began suddenly, Pt reports symptoms began gradually.
  - Objective:** (Empty)
  - Assessment:** (Empty)
  - Plan:** (Empty)
  - Date of Service:** 12/10/2009
  - Patient Number:** 31
  - Chart ID:** not Charted
  - Last Modified:** 12/10/2009
- Bottom Panel:** "Chief Complaint" section with a list of notes.
  - 07/31/2007 constant pain
  - 01/16/2005 Physical Exam/Prevention
  - 11/19/05 01/09/2005 Fever, headache, nausea and vomiting.
  - 12/27/2004 Fever, cough, achiness

# 6. Creating a New Test



# 6. Creating a New Test

- ❖ Lab test are created by name, CPT code and one or more analytes
- ❖ New analytes are set up based upon the lab item result display:  
either a positive/negative, text field, or a minimum/maximum number range
- ❖ New imaging or medical tests are created by adding test name and the CPT code



**New Lab Item**

What kind of result will this test give you?

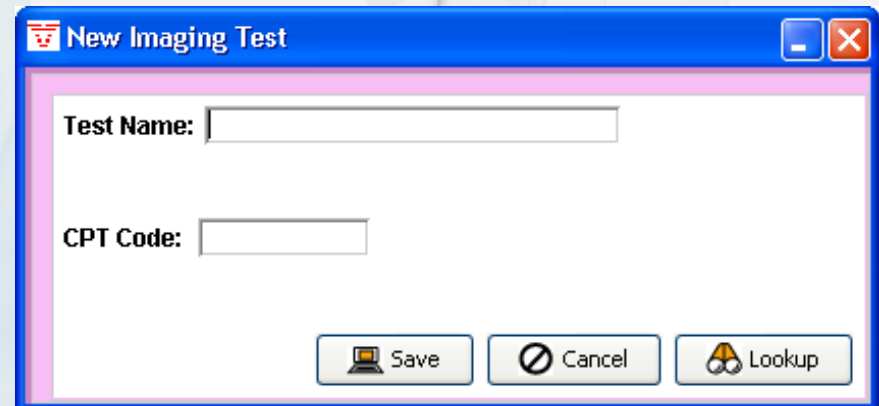
a NUMBER like '2' or '3.4' or '1000'

a 'POSITIVE' or a 'NEGATIVE'

short (one line) text result like '1:60' or 'nonreactive'

a long text result like PAP or pathology

Cancel



**New Imaging Test**

Test Name:

CPT Code:

Save Cancel Lookup

# 7a. Documenting & Activating CPT Codes



# 7a. Documenting & Activating CPT Codes

- ❖ Procedures are selected from within the *Office Visit* screen
- ❖ Choose from *Previous Procedures* window or Procedure category list
- ❖ Procedure categories are set up in the *Category Preferences* window of SpringCharts server

**Procedures**

- Immunization
- Surgery
- InjectMed
- Casting
- Dermatology
- Tube Placement

**PROCEDURE**

Surgery

- Immunization
- Surgery**
- InjectMed
- Casting
- Dermatology
- Tube Placement

Date: 09/20/2007 last mod: 10/04/2007

**PROCEDURE**

CC  
PI  
ROS  
FS  
Vitals  
Exam  
Dx  
Rx  
Test  
Proc  
Other Tx  
F/U-Rem

-All-

**Select Procedure**

- Allergy Injection - 1
- Allergy Injection - 2+
- Appl Modality 1+ Areas Elec St
- Appl Modality 1+ Areas Hot/col
- B12 Inj
- Bicillin CR 1.2 Mil
- Bicillin LA 1.200,000
- Bronchospasm Evaluation
- Celestone 1.5 Cc IM
- Cmt Spi 3-4 Regions
- Cmt Xtrspi 1+ Regions
- Cryosurgery-Molluscum

**Previous Procedure**

- Nebulizer C Albuterol
- Flu Shot
- Wart Removal-nitrogen

# 7a. Documenting & Activating CPT Codes

- ❖ Procedures are selected from within the *Office Visit* screen
- ❖ Choose from *Previous Procedures* window or Procedure category list
- ❖ Procedure categories are set up in the *Category Preferences* window of SpringCharts server
- ❖ New procedures can be activated from CPT dictionary
- ❖ Procedural text can be added to code setup

❖ Procedure text will automatically populate OV note when the procedure is selected

**New Procedure**

**Procedure Name:** Dstrj B9 Sk Tgs/cutan Vasc Up 14 <

**CPT Code:** 17110

**Category:** Surgery

Procedure Text

Pt was advised of the purpose, benefits, and signit  
The patient asked the following questions and was

Pt was advised of the purpose, benefits, and significant risks of this procedure, including but not limited to bleeding, infection, damage to the surrounding tissues, and (other specific risks). Alternative treatments and their risks/benefits were discussed as was the risks of non-treatment. The patient's questions were answered. The patient appears to understand the procedure's risks and possible benefits and has given informed consent.

Save Cancel LookUp

# 7b. Documenting & Activating Dx Codes



# 7b. Documenting & Activating Dx Codes

- ❖ SpringCharts is installed with a limited set of activated diagnosis codes
- ❖ New Dx code activated within OV note or main screen
- ❖ New Dx codes can be retrieved from the ICD-9 database
- ❖ Use *Dx Brief Name* field for description the clinic will use
- ❖ Diagnosis chosen within the Office Visit note

**Edit Diagnosis**

Search

Diagnosis	ICD-9 Code
Abdominal Distention	789.30
Abdominal Mass	789.30
Abdominal Pain	789.60
Abnormal CXR	793.1
Abnormal EKG	794.02
Abnormal Lab Test NOS	796.4
Abnormal Liver Enzymes	790.4
Abnormal Liver Enzymes	794.8
Abnormal PAP	795.00
Abnormal PSA	790.93
Abnormal Renal Function	794.4
Abrasion	919.9
Abscess	682.9
AC Strain	840.0
Academic Problem	V62.3
Acne	706.1
Acne,cystic	706.1
Acne,pustular	706.1
Actinic Keratosis	702.0
Acute Abdomen	789.07
Adactylia	755.4
ADD	314.00

ICD-9 Code

ICD-9 Name

Brief Name