

PPC 6: Test Tracking Element B: Electronic System for Managing Tests

Item 1: Order lab tests.

EHS provides a method for all lab tests to be ordered in the electronic chart under Orders, Add Path/Labs:

The screenshot shows the 'Add Path/Labs' window with the following details:

- Select Picklist:** Starter Set
- STAT:**
- Type name or select from list:** [Empty text box]
- Associate with Current Problems:**
- Lab Tests List:**

Code	Description	Unit
82248	BILIRUBEN FRACTION/DIRECT	Ser.
82247	BILIRUBEN TOTAL	Ser.
88307	BIOPSY INTERPRET W/MARGI	Biop
88305	BIOPSY INTERPRETATION-TEC	Surg
87040	BLOOD CULTURE	Bloc
82805	BLOOD GASES W/02 SATURAT	ABC
86900	BLOOD TYPING, ABO	Bloc
80048	BMP	Basi
83880	BNP	The
84520	BUN	BUN
- Associated Problems List:**

* Code	Description
<input type="checkbox"/> 314.01	ATTENTION-DEFICIT HYPE
<input type="checkbox"/> 785.2	Murmurs
<input type="checkbox"/> 493.90	ASTHMA MODERATE PER
- Buttons:** Close, Save, Undo, Review..., Problems..., Scroll..., Master List..., Defet
- Confidentiality:** Level 1, Level 2, Level 3
- Code:** [Empty field] **Units:** [Empty field]
- Order Date:** 05/03/2010
- Ordering Clinician:** Medical, Assistant
- Delinquent Alter:** [Empty field]
- Modifiers:** [Empty list box]
- Comments:** [Empty text area]

Item 2: Order imaging tests.

EHS provides a method for all imaging tests to be ordered in the electronic chart under Orders, Add Radiology Tests:

Add Radiology Tests

Select Picklist: Starter Set STAT

Type name or select from list:

Code	Description	
74022	ABDOMEN X-RAY EXAM SERIES	X-R.
74022	ABDOMEN X-RAY EXAM SERIES	X-R.
74022	ABDOMEN* W/PA CHEST	X-R.
74022-26	ABDOMEN* W/PA CHEST INTE	
74000	ABDOMEN* KUB	X-R.
74000-26	ABDOMEN* KUB INTERPRETAT	
74000	ABDOMEN: KUB	X-R.
73610	ANKLE* 3 VIEW	X-R.
73610-26	ANKLE* 3 VIEW INTERPRETAT	
73610	ANKLE: 3 VIEWS	X-R.

Associate with Current Problems:

*	Code	Description
<input type="checkbox"/>	314.01	ATTENTION-DEFICIT HYPE
<input type="checkbox"/>	785.2	Murmurs
<input type="checkbox"/>	493.90	ASTHMA MODERATE PER

Close Save Undo Review... Problems... Scroll... Master List... Defer

Confidentiality: Level 1 Level 2 Level 3

Code: Units: Order Date: 05/03/2010

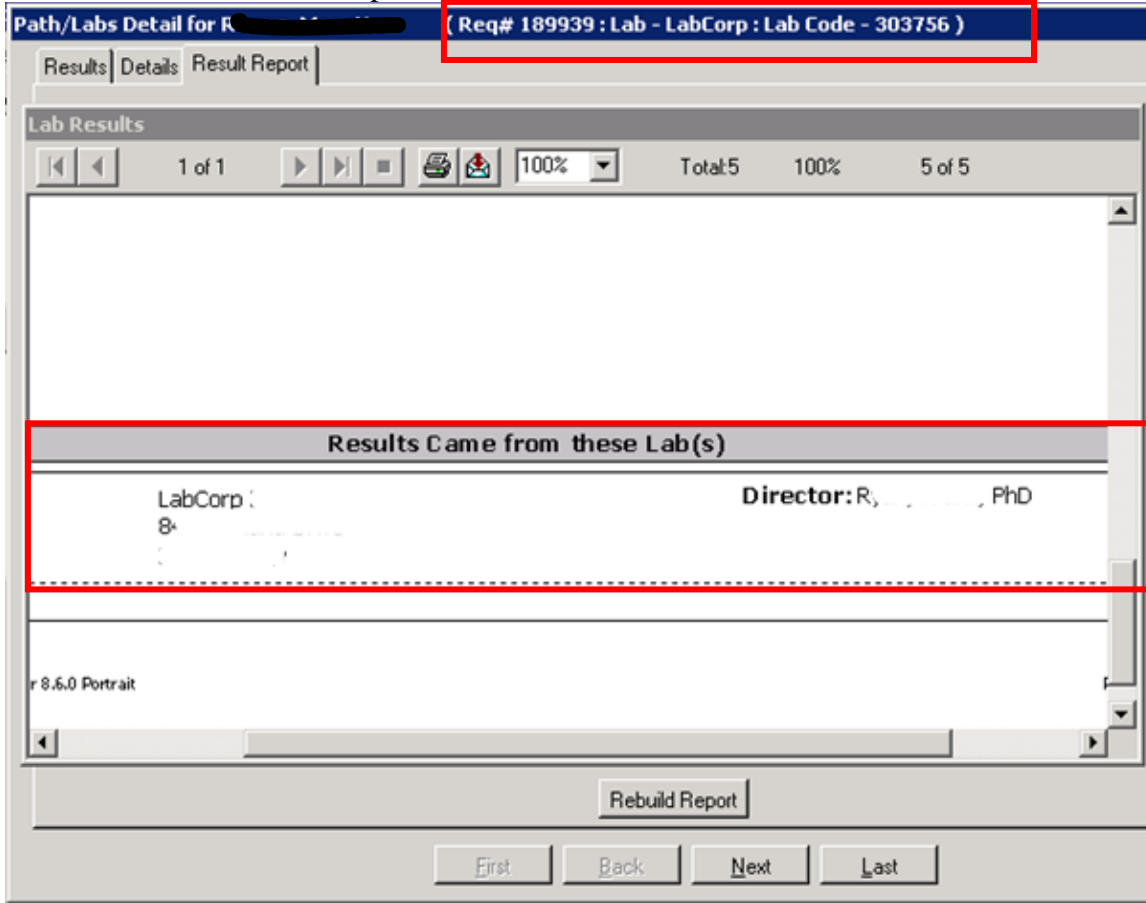
Ordering Clinician: Medical, Assistant

Delinquent After:

Comments:

Item 3: Retrieve lab results directly from source.

EHS has a bi-directional HL-7 interface with LabCorp that allows our lab orders with demographic and billing information to be sent directly to LabCorp. Additionally, the lab results populate back into the patients' charts and then into the provider's organizer in Clinical Console for review. This screen print shows the LabCorp Requisition #, LabCorp Lab Code #, and the LabCorp data at the base of the result:



Item 4: Retrieve imaging text reports directly from source.

We have a contract with a radiology company to read the digital x-rays we do here at CHC-B. We utilize a Virtual Private Network Tunnel to link us directly to the radiology group to whom we send our images. The radiology group sends the text reports back to us using secure email. The report is then imported into EHS and linked to the x-ray order. The first screen shot shows the results imported into the order.

Details for New or Selected Order **Status: PRELIMINARY RESULTS**

Description: SPINE THORACIC* 2 VIEW

Code: 72070 Dosage: Unit Of Measure:
 Date Ordered: 11/02/2010 Lot No: NDC:
 Date Performed: 11/02/2010 Exp: Site:
 Delinquent After: 2 day(s) Mfr: Method:
 Units: STAT
 Ordering Clinician: S' Confidentiality:
 Level 1
 Level 2
 Level 3
 Order Comments:
 Results:
 Comments:
FINDINGS: There is normal alignment of the thoracic spine with maintenance of vertebral body heights. There is diffuse flowing osteophytes anteriorly throughout the thoracic spine compatible with DISH.
 Attachments: No Attachments
 Last Modified JL 11/03/2010 03:00:37 PM

Second screenshot shows the same text results received electronically into the results note:

RADIOLOGY TESTS

Patient Name: G. **Date 1st Visit:** 02/26/2007
Chart No: GF **Date Latest Visit:** 11/02/2010
Phone: () **Examining Clinician:** M.
Age: 74 yrs

Date Ordered	Description	CPT Code	ICD9 Code	Associated Problem	Date Performed
11/02/2010	SPINE THORACIC* 2 VIEW	72070	724.9	Spine Disorders	11/02/2010
			724.4	Thoracic Radiculopathy	

Order Results Comments: AP AND LATERAL THORACIC SPINE RADIOGRAPHS (TWO VIEWS) 11/02/10
 INDICATION: Sore back which started a week ago.
 COMPARISON: None.
 FINDINGS: There is normal alignment of the thoracic spine with maintenance of vertebral body heights. There is diffuse flowing osteophytes anteriorly throughout the thoracic spine compatible with DISH.
 IMPRESSION:
 1. No evidence for subluxation or vertebral body abnormality.
 2. Flowing anterior osteophytes throughout the mid and lower thoracic spine, most compatible with diffuse idiopathic skeletal hyperostosis (DISH).

C. _____, M.D., Ph.D.
 () 80241 (1, 2)
 Electronically signed by: () (Nov 03, 2010 10:07:45)

If a patient has the imaging done at our local hospital, we can utilize ChartLink to save the test result as a PDF and import into EHS as an attachment to the order.

Radiology Test Detail - Patient Number [REDACTED]

MAMMO, BOTH BREASTS-TECH COMPONENT (CPT: 77056) Status: **PRELIMINARY RESULTS**

Ordered: 09/24/2010
 Performed: 09/24/2010 12:00 AM
 Ordering Clinician: T.
 Clinician Role: [REDACTED]
 Delinquent Alter: 15 day(s)

Confidentiality Level: Level 1
 Level 2
 Level 3

Signed By: [REDACTED]
 User: [REDACTED]
 Date: [REDACTED]

Comments: was already contacted by PCP staff in regards to results. CF--iso 10/8/10 1447. Flagged to check on Chartlink for these results. 10/25/10

Result Comments: Your yearly mammogram shows no changes but your breasts are very fibrocystic so please make sure that you do self breast exams. Repeat in 1 year.!

Unreviewed Attachments
 Last Modified: 11/1/2010 8:47:23 AM

Or test results received on paper are scanned in as an attachment to the order:

MEDICAL CENTER
 OCT 29 2010
RADIOLOGY REPORT

Patient name: [REDACTED]
 Age: 44 Sex: F Acc number: [REDACTED]
 Birthdate: [REDACTED] Staytype: O/P Admit Phy: SF
 Admit date: 09/24/10 Room: [REDACTED] Ordering Phy: SF
 Disch date: 09/24/10 Phone: [REDACTED] Second Phy: [REDACTED]
 Location: [REDACTED] Med Rec Num: [REDACTED]
 X-ray number: [REDACTED]

MM DIGITAL SCREENING MAMM - B G0202 COMPLETE:09/24/10 14:50 52813
 Diag: ANNUAL

Unsigned transcriptions represent a preliminary report and do not reflect
 corrections, additions, and/or subtractions to the information contained in this report.

BILATERAL SCREENING DIGITAL MAMMOGRAPHY:
 Comparison 10-13-2008 and 09-05-2007.

The study performed 09-24-2010 is just now submitted for interpretation as apparently the preceding dictation was lost.

Marked bilateral breast parenchymal density is identified. This degree of density could easily obscure underlying noncalcified abnormalities. No spiculated mass is identified. Rounded density is present in the lower outer right breast and upper outer left breast and were unchanged from preceding studies. Scattered benign calcifications are unchanged in both breasts. There is no skin thickening or pathologic lymphadenopathy.

IMPRESSION:
 Unchanging mammogram without radiographic evidence of malignancy. Recommend annual mammogram in September or October of 2011. BIRADS Category 2, benign.

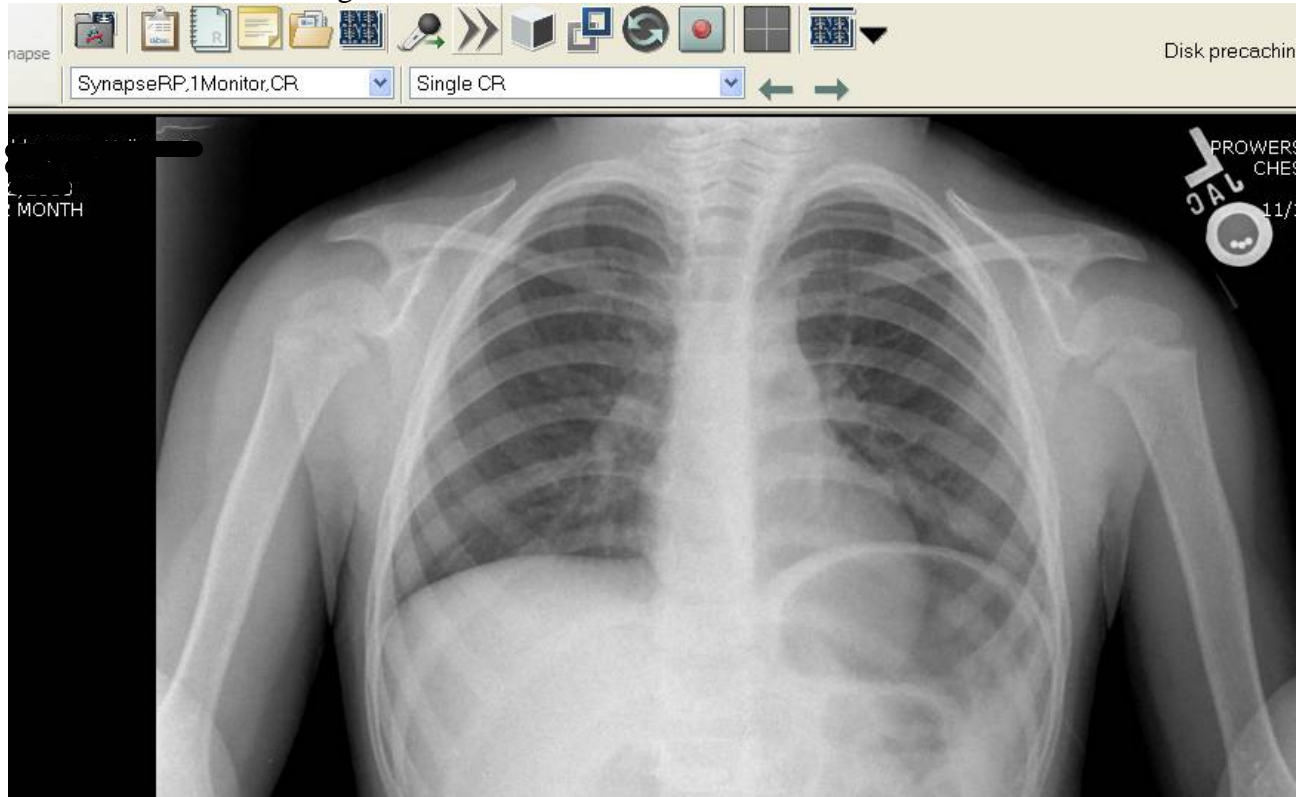
Mode: Select View: Single Page Zoom: 100% Image: 1 of 1

Item 5: Retrieve images directly from the source.

CHC-B has a PACS system that stores demographic information and images for the digital x-rays done in-house. This allows providers to view the digital images at the point of care from any computer.



Our local hospital also makes the images available via CD or the internet for providers to view the images in our office. Here is a screen print of an xray from Xxxx Medical Center that we are viewing in our office:

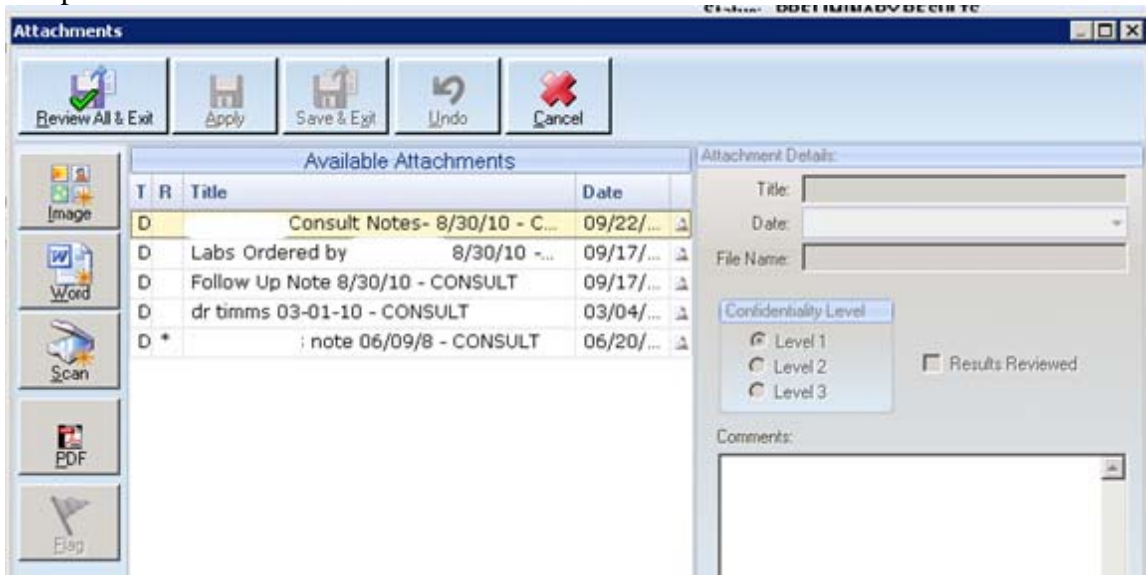


Item 6: Route and manage current and historical test results to appropriate clinical personnel for review, filtering and comparison.

Provider organizers in EHS are utilized for automatic routing of all test results for review and sign off by ordering provider.



Providers can view all attachments while reviewing results in organizer to make comparisons to historical results:

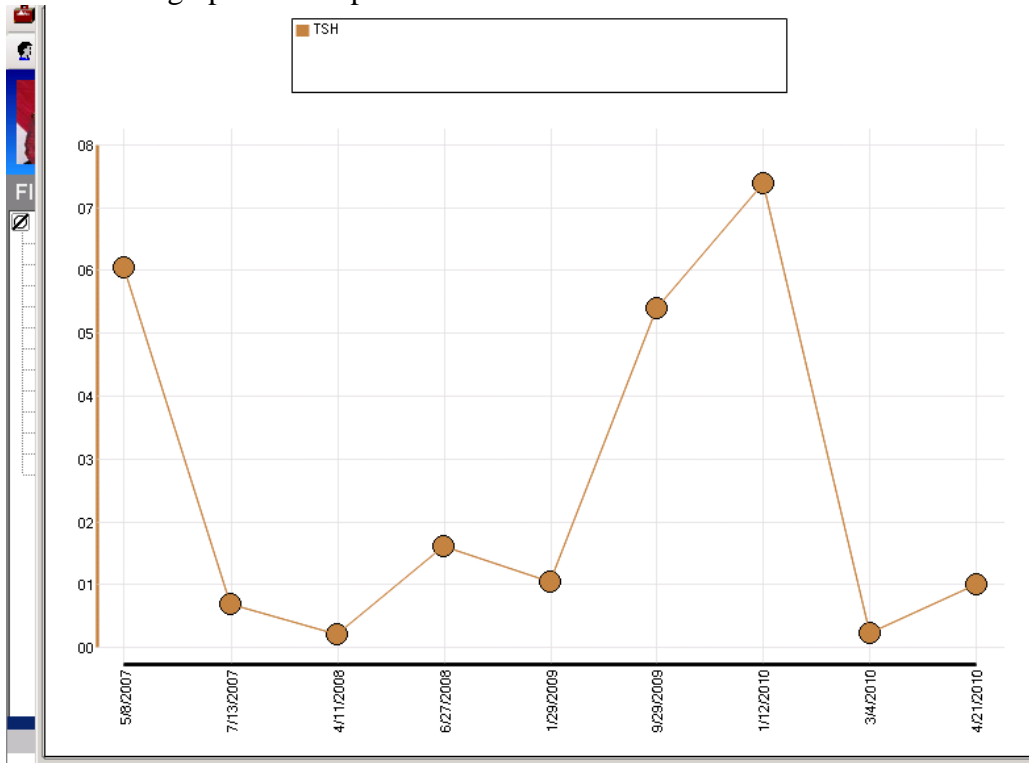


Providers can also look at historical comparisons using flowsheets:

The screenshot shows a medical flowsheet application interface. At the top, there is a menu bar with 'File', 'Modules', 'View', 'Mode', and 'Help'. Below the menu is a toolbar with various icons. A 'Change Patient' button is visible. The patient information section includes fields for Patient Name, Patient Number, DOB, Chart Number, Phone Number (Multiple Exist), and Allergies. The main area is titled 'Flowsheets' and contains a tree view on the left with categories like All Lab Results, A1c, Blood Glucose, BP, Diabetes, Height & Weight, HTN, immunizations, INR, Lipids, TSH, and Weight. The TSH category is selected. The main display area shows a table with columns 'Date' and 'TSH'. The table contains the following data:

Date	TSH
04/21/2010	1.010
03/04/2010	0.243
01/12/2010	7.390
09/29/2009	5.410
01/29/2009	1.053
06/27/2008	1.614
04/11/2008	0.205
07/13/2007	0.694
05/08/2007	6.05

And we can graph the comparison data:



Item 7: Flag duplicate tests ordered.

At this time, EHS does not have a mechanism to flag duplicate tests ordered.

Item 8: Generate alerts for appropriateness of tests ordered.

At this time, EHS does not have a mechanism to look at appropriateness of tests ordered. We do, however, look at this aspect as part of our Peer Chart Audit.

Health Center											
QA - Provider Peer Chart Audit				Date of Review: Aug 17, 2010				Provider: Ai			
Please use one form for each provider & answer each question using the key below											
KEY	N/A = Not Applicable	1=Not Present	2=Major Deficit	3=Minor Deficit	4=Meets Standards						
Element of Documentation	364 7/29/10	777 7/28/10	530 7/26/10	1669 7/29/10	836 8/6/10	1037 8/5/10	372 7/30/10	676 8/2/10	992 7/30/10	1050 7/26/10	3189 8/5/10
A Appropriate History Taken											
B Drug Allergies NKDA Noted											
C Exam Appropriate											
D Appropriate Diagnostic test(s) ordered											
E H&P and testing support diagnosis											
F Medications are appropriate											
G Patient instructions are appropriate											
H Follow-up & time frame is appropriate											
I Referral(s) appropriate											
J Diagnosis in chart matches ESB											
Comments- For ratings of 1 or 2, please indicate chart #-letter and reason (i.e. 2-E exam not documented)											