

# A Web-Based Software Application for Casefinding from ePath Reports

Isaac Hands and Jesse Stewart  
Kentucky Cancer Registry

# Rich Source of Casefinding Data

- > 375,000 total cancer-specific ePath messages
- ~ 8,000 new cancer-specific ePath messages per month
- > 95% coverage of KY Hospitals
- > 90% coverage of KY Non-Hospital Facilities

# How are they retrieved?



Order ePath Report



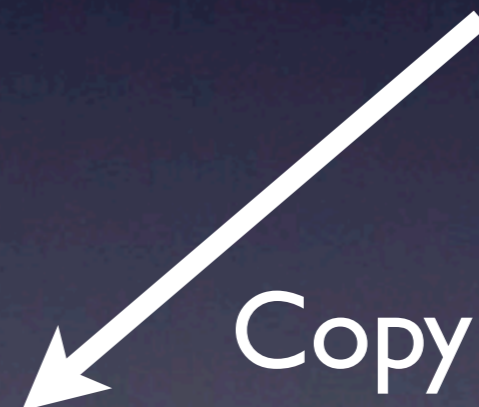
EPath  
Facility

Search Reports



Kentucky Cancer  
Registry

Copy of Report



# How are they organized ?

- Every Message has:
  - Sending Facility (~ 35)
  - Ordering Facility (~ 800)
- Every Sending/Ordering Pair is assigned to a Hospital Registry
- Searchable by any field in ePath report

# KCR is Unique

- All state hospitals use registry software provided by KCR
- Registry software is a web-application
- All hospital registry databases are maintained at KCR
- Small hospitals and non-hospital facilities are abstracted by KCR staff

# How are they protected ?

- Central User Directory for all Hospital Registries
- Every user has access to one or more Hospital Registries



Please Log In

User ID: user

Password: \*\*\*\*\*

Cancel Login

- Software Only shows data from your Hospital Registry

# Search ePath Reports

EPath Index

Search

SSN:  Medical Record:  Cervix Flag:

First Name:  Last Name:  State:   
KY  
TN

Path ID:  Exact Matches:

Final Diagnosis:  Clinical History:

Specimen Date:  Report Date:  KCR Load Date:

Sending Labs		Large Hospitals / Groups		Group Members / Facilities	
Sending Facility	Facility Id	Facility Name	Facility Id	Facility Name	
Ameripath	513003	NORTH KY-SMALL H...	510049	MARSHALL COUNTY ...	
Associated Path	513004	EAST KY-SMALL HOS...	510073	TRIGG COUNTY HOS...	
Baptist East	513005	WEST KY-SMALL HOS...	510203	FRANKLIN-SIMPSON ...	
BioReference Laboratories...	513007	EAST KY NONHOSPIT...	510220	PARKWAY REGIONAL...	

Search Reset

Results

Sending Lab	Last Name	SSN	Medical Rec	Specimen Date	Report Date	KCR
ST. CLAIRE RMC	xxxx	276xxxx	xxxxxx		10/02/2008	08
ST. CLAIRE RMC	xxxxxx	244xxxx	xxxxxx		10/02/2008	08
ASSOCIATEDP...	XXXXX	111111111	AA00000000	12/29/2008	01/06/2009	08
ASSOCIATEDP...	XXXXX	111111111		12/31/2008	01/02/2009	08
ASSOCIATEDP...	XXXXX	111111111		12/30/2008	01/05/2009	08
ASSOCIATEDP...	XXXXXX	111111111		12/22/2008	01/06/2009	08

Page 1 of 1

Displaying 1 - 44 of 44

Index Report Type: All Purpose

Download Index Report

Search Multiple Fields

Choose Sending/Ordering Facilities

View Summary Results

Download Custom Reports

# Custom Reports

Index Report Type: All Purpose

Download Index Report



Casefinding List Jan2011 [Compatibility Mode] - Microsoft Excel

	A	B	E	G	K	N	Z	AA	AB	AC
1	Reviewed	Epath URL	Last Name	SSN	Possible Topographies	Report Date	Final Diag			
2		<a href="#">S08-4135</a>	xxxxxx	244xxxx	C90.0 C50.8 C50.3 C44.9 C50.0	10/02/2008	#####			
3		<a href="#">C08-434</a>	xxxx	276xxxx	C34.0 C80.9 C53.9	10/02/2008	#####			
4		<a href="#">08-GS-008499</a>	XXXXX	111111111	C47.9 C76.0	01/06/2009	DIAGNOSIS: MASS, C2, EXCISION: S			
5		<a href="#">08-GS-008546</a>	XXXXX	111111111	C67.9	01/02/2009	DIAGNOSIS: URINARY BLADDER, BI			
6		<a href="#">08-HM-001219</a>	XXXXX	111111111	C42.1 C42.0 C77.9	01/05/2009	#####			
7		<a href="#">08-TJ-010356</a>	XXXXXX	111111111	C50.9 C49.9 C77.9 C90.0 C24.0	01/06/2009	#####			
8		<a href="#">08-TJ-010532</a>	XXXXXX	111111111	C22.0 C80.9 C34.1	01/06/2009	DIAGNOSIS: CT-GUIDED BIOPSY, LE			
9		<a href="#">08-TJ-010535</a>	XXXXXXXXXX	111111111	C17.9 C18.9 C18.1 C77.9 C45.0	01/02/2009	#####			
10		<a href="#">08-TJ-010542</a>	XXXXX	111111111	C50.9 C44.9 C49.9 C77.3 C77.0	01/02/2009	#####			
11		<a href="#">09-11-000049</a>	XXXXX	111111111	C44.9 C49.9 C44.5 C50.9	01/05/2009	DIAGNOSIS: Right breast mass, incisi			
12		<a href="#">09-11-000097</a>	XXXXXXXXXX	111111111	C50.9 C90.0 C50.0 C49.9 C44.0	01/08/2009	#####			
13		<a href="#">09-11-000201</a>	XXXXXX	111111111	C51.9	01/09/2009	#####			
14		<a href="#">09-11-000260</a>	XXXXXX	111111111	C61.9	01/08/2009	#####			
15		<a href="#">09-21-000184</a>	XXXXXX	111111111	C50.9 C42.0 C77.9 C49.9	01/08/2009	#####			
16		<a href="#">09-56-000008</a>	XXXXX	111111111	C90.0 C76.1 C90.1 C50.6 C50.0	01/06/2009	#####			
17		<a href="#">09-56-000021</a>	XXXXXXXXXX	111111111	C55.9 C57.4 C53.0 C54.0 C57.0	01/07/2009	#####			
18		<a href="#">09-56-000054</a>	XXXXXX	111111111	C90.0 C76.0 C44.3 C19.9 C18.0	01/08/2009	#####			
19		<a href="#">09-56-000066</a>	XXXXXXXXXX	111111111	C34.9 C34.1	01/08/2009	DIAGNOSIS: Lung, right upper lobe, br			
20		<a href="#">09-56-000075</a>	XXXXXXXXXX	111111111	C67.9	01/09/2009	DIAGNOSIS: Bladder, biopsy: Uroth			
21		<a href="#">09-56-000079</a>	XXXXXXXXXX	111111111	C34.3	01/09/2009	DIAGNOSIS: Right lung, lower lobe br			
22		<a href="#">09-56-000082</a>	XXXXX	111111111	C67.9 C49.9	01/09/2009	DIAGNOSIS: Bladder, transurethral res			
23		<a href="#">09-56-000083</a>	XXXXXXXXXX	111111111	C50.9 C49.9 C77.9 C90.0	01/09/2009	#####			
24		<a href="#">09-GS-000012</a>	XXXXXX	111111111	C44.9 C51.9	01/07/2009	DIAGNOSIS: RIGHT VULVAR LESION			
25		<a href="#">09-GS-000016</a>	XXXXXXXXXX	111111111	C50.9 C90.0 C76.1 C77.3 C77.0	01/05/2009	#####			
26		<a href="#">09-GS-000036</a>	XXXXXX	111111111	C90.0 C76.1 C50.9 C44.9 C45.0	01/08/2009	#####			
27		<a href="#">09-GS-000062</a>	XXXXXXXXXXXX	111111111	C90.0 C50.9 C76.1 C44.9 C45.0	01/07/2009	#####			
28		<a href="#">09-GS-000066</a>	XXXXXXXXXXXX	111111111	C75.1 C41.9	01/07/2009	DIAGNOSIS: MIDDLE TURBINATE: TU			
29		<a href="#">09-GS-000078</a>	XXXXXX	111111111	C18.2 C18.3 C18.4	01/07/2009	#####			
30		<a href="#">09-GS-000105</a>	XXXXXX	111111111	C50.9 C77.9 C90.0	01/09/2009	#####			



# View ePath Reports

The screenshot displays a web-based report viewer with a multi-tabbed interface. The active tab is labeled 'XXXX - C08-434'. The interface is divided into two main columns. The left column contains patient demographic and contact information, including Last Name (xxxx), First Name (xxxx S), Middle Name, SSN, Date of Birth, Gender (F), Address (xxxx), City (SALT LICK), State (KY), Zip Code (40371), Home Phone, Business Phone, Medical Record (xxxxxx), External ID, Alternate ID, Maiden Name, and Marital Status. The right column contains report-specific details: Path Report ID (C08-434), Specimen Date, Report Date (10/02/2008), KCR Load Date (08/26/2010), Control ID, Sending Lab (ST. CLAIRE RMC), and various roles such as Orderer, Enterer, Verifier, Collector, Interpreter, Attending Dr, Referring Dr, Consulting Dr, Admitting Dr, and Ordering Facility. Below these columns is a navigation bar with tabs for 'Final Diagnosis', 'Clinical History', 'All Text', and 'HL7 Message'. The 'Final Diagnosis' tab is selected, showing a text-based report. The report text includes: 'FINAL PATHOLOGICAL DIAGNOSIS: Bronchial washing of right main stem: Neoplastic squamous cells are present. See comment. Comment: On a washing it cannot be determined if the neoplastic squamous cells simply represent carcinoma in situ or if they are associated with an underlying invasive squamous cell carcinoma. Clinical correlation is required. See the diagnosis from the biopsy below. CYTOLOGIC DIAGNOSIS ADDITIONAL COMMENTS: Two Pap-stained and two Diff-Quik-stained smears and cell block slides stained with an H\T\E stain are examined. There are neoplastic squamous cells from carcinoma in situ or an invasive squamous cell carcinoma. The neoplastic squamous cells are seen mainly singly without attached stroma. They have enlarged nuclei which are irregular varying in size from around one red cell to several red cells, and some have prominent nucleoli. They have an eosinophilic cytoplasm which appears keratinized. There are also small numbers of benign bronchial epithelial cells. In the background are histiocytes, some of which contain granular tan material. There are small numbers of chronic inflammatory cells. There is no evidence of malignancy. RS 10/01/08'. At the bottom right of the interface is a 'Download PDF' button.

View multiple reports at once

Jump to Text Sections:

- Final Diagnosis
- Clinical
- All Text
- Raw HL7 Text

Download as PDF

# Roadmap

- Setup Electronic Feeds
- Parse ePath Reports into Searchable Database
- Create Web Application for Viewing, Searching, and Generating Reports
- Link Demographics Data with Patients in Hospital Registry
- Link Case-Level Data with Hospital Registry

# Software Technologies

Name	Purpose	Type
MySQL	Database	Open Source
Apache/Tomcat	Middleware	Open Source
ExtJS	Web Application Development	Open Source
PHIN-MS	Transmission	Open Source
Artificial Intelligence in Medicine (AIM)	Filtering and Transmission	Proprietary
Linux	Server Operating System	Open Source

# Acknowledgements

- SEER
- CDC
- KCR Systems Group

Q&A