

The Development of an Internet Case Management Tool for Improved Short- and Long-term Follow-up

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 - Wadsworth Center
- New York State Department of Health



Overview

- Goals
 - Methodology
 - Results
 - Conclusions
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Goals



- Improve efficiency
- Increase ability to interact with providers
- Enhance access to abnormal newborn screen results

Methodology

- Joint application design – January 2011
 - Functional specifications – September 2011
 - Technical specifications – October 2011
 - Development
 - Base system and remote diagnostic entry - January 2012
 - Long-term follow-up - July 2012
-

Results: Overview

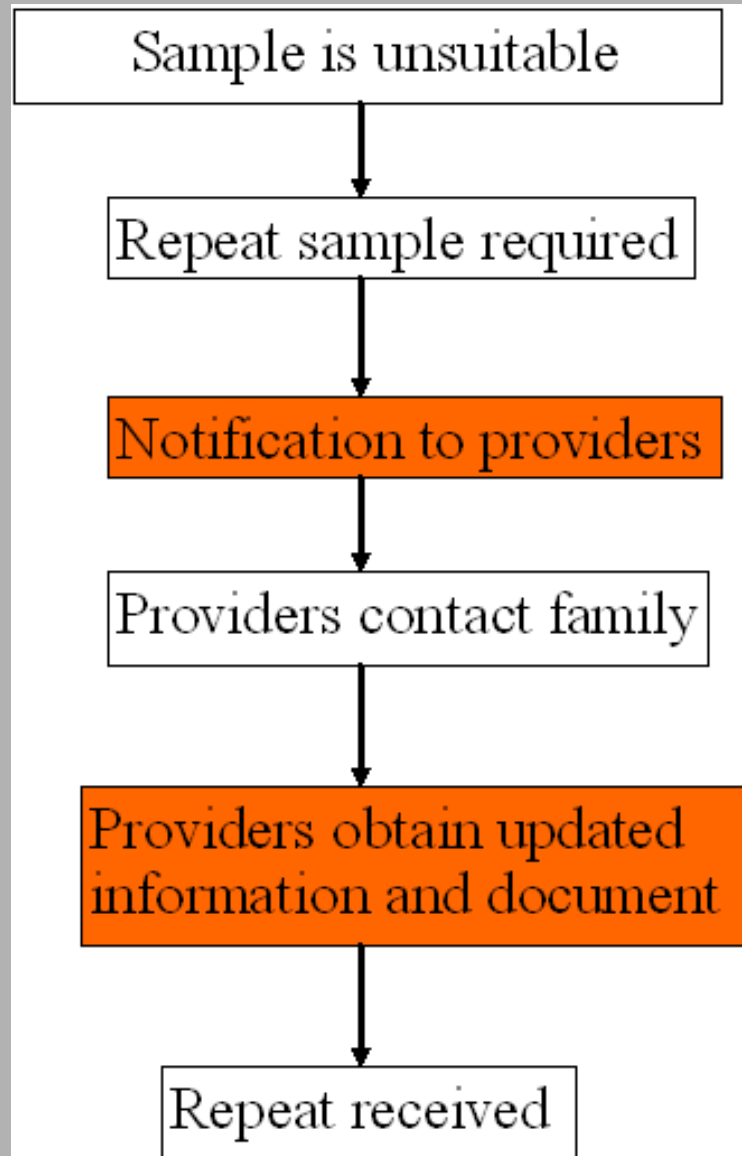
- System functions
 - Base functions
 - Short-term follow-up
 - Long-term follow-up
- Security



Results: Base Functions of iCMS

- Components
 - Case demographics
 - Notebook
 - Case status
 - Provider list
 - Image capture
 - Patient history
 - Test results (digifiche)





Case Demographics

Baby's Information


Name	<input type="text" value="Sarah Smith"/>	
Birth Date / Time	<input type="text" value="10/10/2011"/>	/ <input type="text" value="0700"/>
Birth Weight	<input type="text" value="3000"/>	
Sex	<input type="text" value="Female"/>	
Birth Order	<input type="text"/>	
Med Rec ID	<input type="text" value="12341234"/>	
Race	<input type="checkbox"/> Asian/Pacific Islander	<input type="checkbox"/> Black <input type="checkbox"/> Native American <input type="checkbox"/> Other <input type="checkbox"/> White
Ethnicity	<input type="text" value="Not Hispanic"/>	
Birth Hospital	<input type="text" value="4322"/>	<input type="button" value="..."/>
Audiologist Med Rec ID	<input type="text"/>	

Mother's Information

Name	<input type="text" value="Jones"/>	,	<input type="text" value="Melissa"/>
Age	<input type="text" value="29"/>		
Mailing Address	<input type="text" value="1 Park Ave"/>		
City	<input type="text" value="New York"/>		
State	<input type="text" value="NY"/>		
Zip Code	<input type="text" value="10021"/>		
County	<input type="text" value="New York"/>		

Notes

Note:



A rich text editor toolbar with various icons for editing text, including cut, copy, paste, undo, redo, link, unlink, bold, italic, underline, text color, background color, bulleted list, numbered list, indent, outdent, and font color. Below the icons are dropdown menus for font name and font size, and buttons for bold, italic, underline, text color, background color, and font color.

I spoke with the mother of the baby on 10/12/11. I informed her that a repeat is required. I also obtained an updated address and primary care provider, which have been updated in the case.

Jane Doe, RN
Newborn Screening Coordinator

Save

Cancel

Return to grid

Results: Remote Diagnostic Entry

- Replacing the current paper process for specialty care centers
 - Benefits
 - Increase efficiency
 - Eliminate need to interpret handwriting
 - Reduce paper use
 - Individualize follow-up efforts
-

Email notification and
electronic diagnostic form

Specialist views
NBS results

Specialist documents
initial visit



Specialist completes
electronic diagnostic form

Case closed to short-term follow-up

Case assigned long-term follow-up code

Notes

Note:

Sarah Smith was seen in Metabolic Clinic on 10/17/11. Diagnostic testing was done.

Save

Cancel

Return to grid

Drag a column header here to group by that column

View Document	Lab Number 	Date Reported 	Date Created 
	<input type="text"/> 	<input type="text"/>  	<input type="text"/>  
	20101400516	5/5/2010	5/5/2010
	20101400516	5/21/2010	5/21/2010

Remote Diagnostic Entry: Email Notification System

NEWBORN SCREENING PROGRAM
New York State Department of Health
Wadsworth Center, Biggs Laboratory, P.O. Box 509
Albany, NY 12201-0509
Phone: (518)473-7552 Fax: (518) 474-0405
E-mail: nbsinfo@health.state.ny.us
Website: <http://www.wadsworth.org/newborn/>

REQUEST TO COMPLETE ELECTRONIC NEWBORN SCREENING FORM

You have an outstanding request(s) for follow-up information in the internet case management (iCMS) system. As of [Today's Date], there are 15 pending referral actions posted to your Landing Page.

Please [click here](#) to access this information.

Compliance is mandated through regulation.








Your immediate attention to this matter is most appreciated. If further information is needed, please telephone (518) 473-7552.



Michele Caggana, Sc.D., FACMG
Director, Newborn Screening Program

Image Capture

Drag a column header here to group by that column

View Document	Image ID 	Comment 	Date Saved 
<input type="text"/>	<input type="text"/> 	<input type="text"/> 	<input type="text"/> 
	23	Test Image	04/25/2011

 Add New Image

Case Disposition

Disposition

Disposition Date

Closed By

Notes

Assigned Diagnosis:

Diagnosis Type	Diagnosis Code	Description
Presumptive	LOSTF	Lost To Follow-Up Couldn't Locate

Results: Long-term Follow-up

- LTFU information can only be entered and viewed by specialty care centers



End of first year of life



System generated email notification and electronic form



Electronic form completed by provider



System automatically generates reminder for year 2

Hospital Staff and Public Health Officers

	Current	iCMS
Abnormal test results	Mail	View and print as PDF
Notification of need for repeat specimens	Mail	Email
Demographic updates	Phone Mail Fax	Update directly in iCMS
Efforts to obtain repeat specimen	Phone Mail Fax	Remote form entry Notebooks
Case status	Phone Mail Fax	View case status

Specialty Care Centers

	Current	iCMS
Abnormal test results	Mail Fax	View and print as PDF
Notification that infant was evaluated	Mail Fax	Notebook
Diagnostic data	Mail Fax	Remote diagnostic entry
LTFU data	Not done	Entered into an electronic form

Security



Security: New York State Health Commerce System

- Health Commerce System (HCS) web portal
 - More than 250 applications for web based exchange of all types of health information and data
 - User base of over 86,000 individuals



Security

- Case data is conditionally displayed based on assignment and role
 - Patient assignments
 - Hospitals
 - Specialists
 - Public health officers
 - Modifications will be tracked by user, date and time
-

Security: Search Criteria

- Restrictive and require entry of specific patient data

Search for Patient record in one of the two ways based on if you are a Submitting / Non Submitting Facility:

SUBMITTING FACILITY Search

--> **ANY ONE** of the below fields **EXCEPT Birth Hospital**

NON SUBMITTING FACILITY Search

--> **Lab ID OR (Mother Last Name AND Infant Birthdate AND Birth Hospital)**

Lab ID

Birth Hospital

Infant Birth Date

Infant Last Name

Mother Last Name

Medical Record Number

Search

Clear

Conclusion

- Secure
- Comprehensive
- Improves communication with public health officers, specialists and hospitals

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Thank you