



# PA Case Management System (iCMS) SaaS Implementation

## Treatment Center (TC) Training

## What is iCMS?

- Internet Case Management System (iCMS), a web-based software application
- Used by the Pennsylvania Department of Health's Division of Newborn Screening and Genetics (DNSG) for case management, tracking and managing the follow-up of newborn filter paper and point-of-care (POC) screening results for infants born/residing in PA
- Developed and supported by Neometrics, a division of Natus



## Service Vendor

- Neometrics, a Division of Natus, incorporated in 1978
- Based in Hauppauge, NY
- Staff has over 100 years of experience in newborn screening and data management
- Market leader in newborn screening software for:
  - Testing, reporting and case management
  - Electronic data transfer (via HL7)
  - Federal reporting





## Implementation Coordinator and Trainer

**Lisa Hudson**, Applications Systems Analyst II and Certified HL7 Control Specialist, has over 20 years of public health systems experience

Responsibilities include:

- Provide assistance and training to existing clients (users and IT staff)
- Provide technical expertise on application, network and database issues
- Create user manuals, documentation and training materials
- Prepare iCMS users for training and go-live
- Train iCMS users

**Lisa Hudson**

[Lisa.Hudson@Natus.com](mailto:Lisa.Hudson@Natus.com)

**800-645-3616 x4193**



## PA DNSG

**Kelly Holland**, Public Health Program Director - [kholland@pa.gov](mailto:kholland@pa.gov)

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**Charu Pahwa**, IT Project Manager - [c-chapahwa@pa.gov](mailto:c-chapahwa@pa.gov)

# Training Schedule

1:30 pm - 3:00 pm

- Introduction
- Programmatic Requirements
- Pending Referrals
- Final Diagnosis Needed
- Completed Evaluations

Break

3:15 pm - 4:30 pm

- Case Management
- User Administration



# Training Materials

The training folder includes the following:

- Trainer Slides
- Login Information Sheet
- Go Live Check List
- WebEx Schedule
- Training Evaluation Form



## Implementation Goals

Provide a *single comprehensive* data system that:

- supports the newborn metabolic, hearing and critical congenital heart defects (CCHD) screening follow-up programs
- supports unlimited DOH and external users, with different scopes and levels of access based on their roles
- provides fast and accurate identification of infants and their newborn screening results
- provides a secure interface for exchanging protected health information (PHI) with the contracted laboratories, submitters and treatment centers
- increases timeliness and efficiency of follow-up and reporting

# Implementation Plan

- ✓ **Phase I:** Laboratories are able to send newborn filter paper screening data to iCMS, using HL7 messaging. DOH users are able to perform newborn screening follow-up activities and run reports in iCMS. An ad-hoc reporting tool is also provided for DOH to build custom reports, as needed.

## Current Phase

- **Phase II:** Treatment Centers (TCs) are provided access to iCMS for *specified* diagnostic follow-up activities and hospitals, midwives and birthing centers are able to manually enter or electronically submit hearing screening data to iCMS.
- **Phase III:** Audiologists, Cardiologists and other health care professionals working with the newborns are provided access to iCMS for *specified* in-patient and out-patient diagnostic evaluation follow-up activities.



## Phase II Objectives

- Bring the Pennsylvania newborn screening and genetics program in-line with other newborn screening and genetics programs across the country.
- Reduce and eventually eliminate the need for the current email of workbooks between state and TCs.
- Provide TCs direct access to referred cases for easy and quicker reporting of diagnostic results, leading to timely follow-up and treatment.



# TC Responsibilities

## **Following the PA iCMS TC Training Course**

- Within 2 weeks of attending this training
  - train the team members
  - complete proficiency exercises
  - coordinate a go-live date with Lisa Hudson
  - participate in weekly TC Training Support WebEx for a total of 6 weeks

## **Go-Live**

- Begin updating all referrals and diagnostic results directly in iCMS



## Data Entry Learning Objectives

- Be able to log into iCMS
- Use iCMS to track and complete referrals
- Use iCMS to track and complete diagnostic evaluations
- Be prepared to train others on how to use the system
- Be prepared to create user accounts in iCMS for other users
- Feel comfortable using PA iCMS



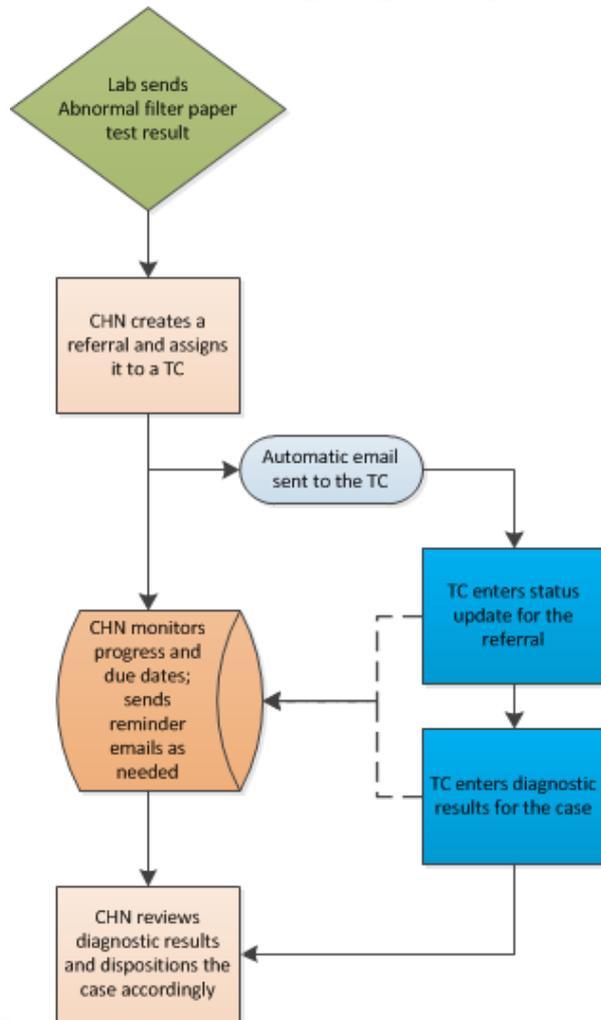
## iCMS Concepts

- Sequence of data entry
- Work grids
- PHI and emails (trusted sender Neometrics.com)
- Individual logins



# Let's Get Started...

# Referral-Diagnosis Work Flow



## Current Process

- CHN creates a referral in iCMS and emails a workbook to the TC
- TC submits status information via email and CHN enters it into iCMS
- TC submits diagnostic workbook via email and CHN enters it into iCMS

## To-Be Process

- CHN creates the referral in iCMS and an automatic email notification is sent to the TC
- TC completes the referral or cancels it in iCMS
- TC enters the diagnostic results directly in iCMS



# New Referral-Diagnosis Work Flow

- The MS Excel workbooks will no longer be needed
- TCs will have direct access to the system, to provide status update and enter diagnostic results for assigned cases
- TCs will be notified by an automatic email when a new referral is assigned to their facility
- Expected response time for status updates and final diagnosis will vary based on the disorder

Disorder	Max # of Days to Update Referral
CAH	within 4 days of referral
CF	within 3 weeks of referral (21 days)
CH	within 4 days of referral
HGB	within 3 weeks of referral (21 days)
META	within 4 days of referral
SCID	within 4 days of referral

- TC users will have the ability to log into iCMS at any time to access new and pending referrals, cases that need final diagnosis and completed cases for their facility



# Referral Email

From: customersupport@neometrics.com  
 To:  
 Cc:  
 Subject: Newborn Screening Referral from PA DOH

You are receiving this email because a referral was made to your facility for a condition listed on the Pennsylvania Newborn Screening Panel. Please log into the Pennsylvania Department of Health's newborn screening case management system, iCMS, to view the case details.

You must update the referral in iCMS with initial contact and initial assessment information. Once a diagnosis is determined, you must enter the Diagnostic Results in the system, no later than ten business days following the date of diagnosis.

Please do not hesitate to contact the Newborn Screening Follow-up Program with any questions or concerns, by calling 717.783.8143.

[Click here](#) to access this information.

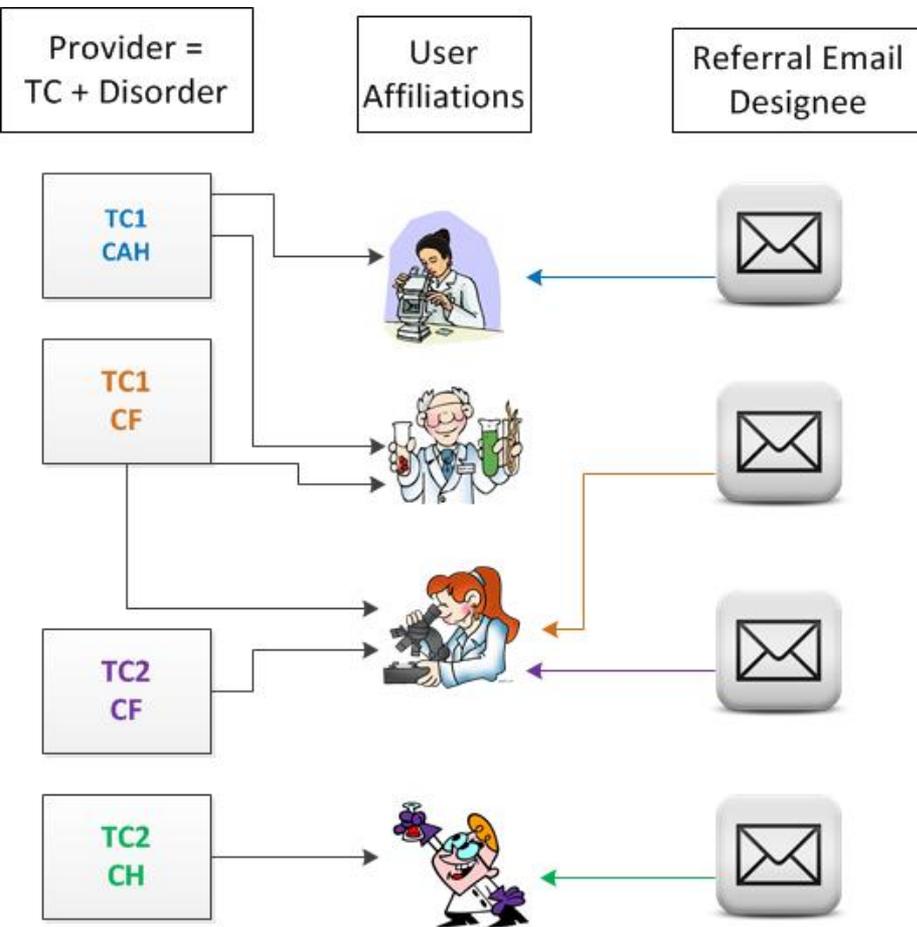
*Healthcare practitioners, including physicians and surgeons, and healthcare facilities, including birthing centers and hospitals, are required to report final diagnoses of certain diseases in the newborn child to the Pennsylvania Department of Health, Bureau of Family Health, Division of Newborn Screening and Genetics, (see 35 P.S. §521.16; 28 Pa. Code §27.1; 28 Pa. Code §27.30; 28 Pa. Code §27.21a; and effective July 1, 2009 35 P.S. §623).*

**NEWBORN SCREENING & FOLLOW-UP PROGRAM**

Pennsylvania Department of Health Bureau of Family Health | Division of Newborn Screening and Genetics  
 625 Forster Street, Seventh Floor East | Harrisburg, PA 17120  
 Phone: 717-783-8143

- Referral creation will send an automatic email to all affiliated designees
- “**Click here**” will open the iCMS login page

# Defining Affiliations



- Treatment Center Name + Disorder
- Users are assigned to the Provider
- Referral email designees are configured to receive emails

## Login



Pennsylvania Department of Health  
Bureau of Family Health | Division of Newborn Screening and Genetics  
625 Forster St. | Seventh Floor East, Health and Welfare Building | Harrisburg, PA 17120  
Phone: 717-783-8143 or 877-724-3258 Fax: 717-724-6995  
Web: www.health.pa.gov



### iCMS Browser Requirements

Please enable Compatibility Mode for this site. (IE Users)  
Ensure iCMS is set as a Trusted Site. (IE Users)  
Download and Open the Quick Patch to update your browser.  
Make sure your browser's Pop-up Blocker is turned off.  
It's recommended to turn off header/footer for letter printing.

**User Name**

**Password**

**Login**

[Forgot your password?](#)

**Supported Web Browsers: IE v10 and higher**

**User Tip: TURN OFF the pop up blocker on first login**

**If you forget or misplace your password:  
Click "Forgot your Password?"  
You have 5 attempts before you are locked out.**

**Add 'nbs.pa.gov' to the list of trusted sites on your workstation onsite.**

URL For Training:

<https://www.nbs.train.pa.gov/toolbar/login.aspx>

URL For Production:

<https://www.nbs.pa.gov/toolbar/login.aspx>

In IE you must run in compatibility mode:  
Tools ->Compatibility View Setting  
Add this website → Click Add

## Password Criteria

- Passwords must have 8 characters including an uppercase, lowercase, numeric and a symbol
- Password can not be one that was previously used within last 180 days
- Users can only change their password 1 time every 15 days
- TC Administrators can reset a user's password at any time
- Temporary password is good for 14 days
- Password reset required every 60 days

# User Terms and Conditions

**Attention**



**Pennsylvania Internet Case Management System**

**User Terms and Conditions**

By using the Pennsylvania Internet Case Management System (PA iCMS), you attest to the following:

**AUTHORIZED ACCESS**

- 1) I attest that the information I provided during registration is my own and is true and accurate to the best of my knowledge.
- 2) I attest that I am legally authorized to access the PA iCMS.
- 3) I understand that PA iCMS usernames and passwords are assigned to individuals and not to facilities. All authorized users must have their own accounts using their own credentials. Usernames and passwords cannot be shared. Any violations of username and password security may result in revocation of direct access.
- 4) I understand that I am only permitted to use the PA iCMS for the reasons explicitly stated in the Infant Hearing Education Assessment, Reporting and Referral (IHEARR) Act, 11 P.S. §§ 871-1 et seq.; the Newborn Child Testing Act, 35 P.S. §§ 621 et seq.; 28 Pa. Code Chapter 28; and, the Newborn Child Pulse Oximetry Screening Act, 11 P.S. §§ 878.1 et seq.
- 5) I agree to report any suspected breach or unauthorized access of the system to the Pennsylvania Newborn Screening Program immediately.

**CONFIDENTIALITY**

- 6) I understand that the data from the PA iCMS is protected patient health information and any information accessed must be treated as confidential as required by the authority cited in paragraph 4 above.
- 7) I understand that any person who unintentionally or intentionally makes an unauthorized disclosure of information from the PA iCMS may be subject to civil and criminal penalties.
- 8) I agree to abide by all rules and regulations set forth in the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and any subsequent amendments.

**GENERAL TERMS AND CONDITIONS**

- 9) I accept the above conditions and certify that I am a healthcare professional authorized to access the PA iCMS.

Agree
  Do Not Agree

- Users must agree to these terms and conditions to access iCMS

## Landing Page



Case Management

Only available to TC Administrators



User Administration



Pending Referrals



Final Diagnosis Needed



Completed Evaluations

### Top Toolbar:

- **Home (Landing Page)** – Daily tasks and system options
- **Release Notes** – Training Materials
- **Contact Us** – Newborn Screening home page
- **Logout** – Exit out of iCMS

## Pending Referrals



**Case Management**



**User Administration**



**Pending Referrals**



**Final Diagnosis Needed**



**Completed Evaluations**

- Link to all new and pending referrals
- Records based on role and affiliation

# Pending Referrals

## Search Filter

Enter the required search criteria below.

Start Date

End Date

Pending Referrals - By Referral Date

Select	Med Rec #	Newborn Id	Infant Last Name	Infant First Name	AKA Name	DOB	Gender	Birth Order	Mother Last Name	Mother First Name	DBS Submitter	Most recent FP DOC	Referral Date	Referral Type	Status Due Date	CHN
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>										
<input type="checkbox"/>	9090	PA9090	BABY	BOY		01/17/2017	Male		MARY	JABNE	PA Department Of Health		05/08/2017	META - Metabolic	05/12/2017	

- Displays all referrals assigned to the TC and disorder, awaiting an update
- Defaults to referrals created in the past 90 days
- Overdue cases highlighted in yellow
- Use the filter options on the top to change the default settings

# Pending Referrals

Export to Excel  Items Overdue

Drag a column header here to group by that column

Sort the column in ascending order by clicking on the column. Click the column twice to sort in descending order.

Filter on a specific value entered into the column

Select	Med Rec #	Newborn Id	Infant Last Name	Infant First Name	AKA Name	DOB	Gender	Birth Order	Mother Last Name	Mother First Name	DBS Submitter	Most recent FP DOC	Referral Date	Referral Type	Status Due Date	CHN
Select	9090	PA9090	BABY	BOY		01/17/2017	Male		MARY	JABNE	Department of Health		05/08/2017	META - Metabolic	05/12/2017	

Click the arrow on the column to see the available values to filter

- (All)
- Male
- Female

Click the Key to select other filter options

- Begin with
- Contains
- Ends with
- Equals
- Doesn't equal
- Is less than
- Is less than or equal to
- Is greater than
- Is greater than or equal to

- The filter and sorting options described for this grid can be used throughout iCMS
- The “Export to Excel” will take all data displayed on the grid and create an excel file. This option also appears on all iCMS grids. When selected, a popup message will display at the bottom of the screen:

Do you want to open or save **Export\_8\_5\_2017\_2\_49\_PM.xls** from 10.24.3.131?

Open

Save

Cancel



# Pending Referrals

## Search Filter

Enter the required search criteria below.

Start Date 5/7/2017

End Date 8/5/2017

Filter Results

Pending Referrals - By Referral Date

Export to Excel Items Overdue

Drag a column header here to group by that column

Select	Med Rec #	Newborn Id	Infant Last Name	Infant First Name	AKA Name	DOB	Gender	Birth Order	Mother Last Name	Mother First Name	DBS Submitter	Most recent FP DOC	Referral Date	Referral Type	Status Due Date	CHN
Select	9090	PA9090	BABY	BOY		01/17/2017	Male		MARY	JABNE	PA Department Of Health		05/08/2017	META - Metabolic	05/12/2017	

- Click "Select" to complete or cancel a referral

# Pending Referrals

Home Help Contact Us Search Logout Screen 1 of 1 < Prev Next >

<b>Newborn ID:</b> PA9090	<b>Infant Name:</b> BABY, BOY	<b>Gender:</b> Male
<b>Case Status:</b> Open	<b>Mother's Name:</b> MARY, JABNE	<b>Date of Birth:</b> 01/17/2017 @ 12:33
<b>Birth Order:</b>	<b>Mother DOB:</b>	<b>Birth Weight:</b> 3200 grams
<b>Filter Paper #:</b> PA9090	<b>Submitter Name:</b>	<b>Results Released:</b> 01/17/2017
<b>TPN:</b>	<b>Birth Facility:</b>	<b>PCP:</b>
<b>Transfused Date:</b>	<b>MRN #:</b> 9090	<b>PCP Phone:</b>
<b>Gestation Age:</b>	<b>Collection Date:</b>	<b>Hearing Date:</b>
<b>Pulse Ox Date:</b>	<b>Pulse Ox Result:</b>	<b>Reason:</b>

Cancel  
Retry

**Edit Referral**

\* Referral Type: CAH - Endocrinology CAH

\* Referred To: TC01ENDO  
Albert Einstein Medical Center - ENDOTC  
5501 Old York Road,  
Philadelphia, PA 19141

\* Referral Date: 8/5/2017  
Notified:

DOH Comment:

Initial Contact made with: PCP

\* Initial contact date:

\* Assessment scheduled on day of initial contact:

Initial Assessment Conducted:

\* Initial Assessment Scheduled:

\* Name of the Person Completing Report:

\* Date Report Completed:

Comments:

Referral Cancelled:

\* Referral Cancelled Reason:

Answer these questions only for CF.

\* Were CFTR mutations detected on the newborn screening panel(s)?

\* Variants on allele 1:

\* Variants on allele 2:

Edit Save Cancel

[Return to Referrals Grid](#)

- The referral opens in edit mode
- Red asterisks (\*) indicate mandatory fields
- Blue asterisks (\*) indicate conditionally mandatory fields



# Pending Referrals

Home	Help	Contact Us	Search	Logoff	Screen 1 of 1 < Prev 1 Next >
<b>Case Information</b> ▾ ◦ Demographics (C) ◦ Referrals ◦ Document Capture <b>Dried Blood Spot</b> ▾ ◦ Laboratory Results ◦ Lab Demographics ◦ CH Diagnostic Results	<b>Newborn ID:</b> PA9090 <b>Case Status:</b> Open <b>Birth Order:</b> <b>Filter Paper #:</b> PA9090 <b>TPN:</b> <b>Transfused Date:</b> <b>Gestation Age:</b> <b>Pulse Ox Date:</b>	<b>Infant Name:</b> BABY, BOY <b>Mother's Name:</b> MARY, JABNE <b>Mother DOB:</b> <b>Submitter Name:</b> <b>Birth Facility:</b> <b>MRN #:</b> 9090 <b>Collection Date:</b> <b>Pulse Ox Result:</b>	<b>Gender:</b> Male <b>Date of Birth:</b> 01/17/2017 @ 12:33 <b>Birth Weight:</b> 3200 grams <b>Results Released:</b> 01/17/2017 <b>PCP:</b> <b>PCP Phone:</b> <b>Hearing Date:</b> <b>Reason:</b>	<input type="button" value="Cancel"/> <input type="button" value="Retry"/>	
<input type="button" value="Edit Referral"/>					

The header of a case has several components:

- The center, blue banner identifies the infant
- The left-side navigation menu includes links for other case details
- The right top corner allows for system navigation
  - **Cancel** - Return to the previous screen
  - **Retry** - Return to the grid from where you selected the case
  - **Prev** and **Next** - Allow you to view additional filter papers for the case

# Pending Referrals

**Edit Referral**

\* Referral Type: CAH - Endocrinology CAH

\* Referred To: TC01ENDO  
 Albert Einstein Medical Center - ENDOTC  
 5501 Old York Road,  
 Philadelphia, PA 19141

\* Referral Date: 8/5/2017

Notified: [Text Field]

DOH Comment: [Text Area]

Initial Contact made with: PCP

\* Initial contact date: [Calendar Drop-down]

\* Assessment scheduled on day of initial contact: [Option Drop-down]

Initial Assessment Conducted: [Option Drop-down]

\* Initial Assessment Scheduled: [Option Drop-down]

\* Name of the Person Completing Report: [Text Field]

\* Date Report Completed: [Calendar Drop-down]

Comments: [Text Area]

Referral Cancelled:

\* Referral Cancelled Reason: [Option Drop-down]

Answer these questions only for CF.

\* Were CFTR mutations detected on the newborn screening panel(s)? [Option Drop-down]

\* Variants on allele 1: [Text Field]

\* Variants on allele 2: [Text Field]

Buttons: Edit, Save, Cancel

- \* Mandatory data for Save
- \* Conditionally mandatory

- ✓ Option drop-down
- ☑ Calendar drop-down

- Click “Save” to update the referral
- Click “Cancel” to exit the record without updates
- “Comment” and other text fields have size limitations

# Pending Referrals

**Initial Assessment Scheduled** : This field is required

**Edit Referral**

\* Referral Type: CAH - Endocrinology CAH

\* Referred To: TC01ENDO  
Albert Einstein Medical Center - ENDOTC  
5501 Old York Road,  
Philadelphia, PA 19141

\* Referral Date: 8/5/2017

Notified: [ ]

DOH Comment: [ ]

Initial Contact made with: PCP

\* Initial contact date: 8/5/2017

\* Assessment scheduled on day of initial contact: Yes

Initial Assessment Conducted: 8/5/2017

\* Initial Assessment Scheduled: 8/5/2017

\* Name of the Person Completing Report: Lisa

\* Date Report Completed: 8/5/2017

Comments: [ ]

Referral Cancelled: [ ]

\* Referral Cancelled Reason: [ ]

Answer these questions only for CF.

\* Were CFTR mutations detected on the newborn screening panel(s)? [ ]

\* Variants on allele 1: [ ]

\* Variants on allele 2: [ ]

Buttons: Edit, Save, Cancel

- If mandatory data is missing or incorrect, error message(s) will display at the top of the screen when you click “Save”
- Fill in the required details correctly and click “Save” again

**Note:** The bottom of the form needs to be completed for Cystic Fibrosis referrals only.

# Pending Referrals

Home Help Contact Us Search Logoff Screen 1 of 1 < Prev 1 Next >

**Case Information**

- Demographics (C)
- Referrals
- Document Capture
- Dried Blood Spot**
  - Laboratory Results
  - Lab Demographics
  - CAH Diagnostic Results

**Newborn ID:** PA9090      **Infant Name:** BABY, BOY      **Gender:** Male  
**Case Status:** Open      **Mother's Name:** MARY, JABNE      **Date of Birth:** 01/17/2017 @ 12:33  
**Birth Order:**      **Mother DOB:**      **Birth Weight:** 3200 grams  
**Filter Paper #:** PA9090      **Submitter Name:**      **Results Released:** 01/17/2017  
**TPN:**      **Birth Facility:**      **PCP:**  
**Transfused Date:**      **MRN #:** 9090      **PCP Phone:**  
**Gestation Age:**      **Collection Date:**      **Hearing Date:**  
**Pulse Ox Date:**      **Pulse Ox Result:**      **Reason:**

**Referrals**

Referral Date	Referral Type	Referred To	Phone #	Notified To	Completed By	Completed On	Status
Select 08/05/2017	CAH - Endocrinology CAH	Albert Einstein Medical Center - ENDOTC	(215) 456-8706		TCA_CAH	08/05/2017	Completed

Add Referral

- Once saved, the screen is redirected back to the Referrals summary page
- The referral status will be updated to “Completed”
- The referral will be removed from the “Pending Referrals” grid and added to the “Final Diagnosis Needed” grid
- To view and edit a referral, click “Select” next to it

# Cancel Pending Referral

Comments

Referral Cancelled

\* Referral Cancelled Reason

Answer these questions only for CF.

\* Were CFTR mutations detected on the newborn screening panel(s)?

\* Variants on allele 1:

\* Variants on allele 2:

- Check the “Referral Cancelled” box
- Select a “Referral Cancelled Reason”
- Click “Save”

## Pending Referrals - Exercise

- Login to the PA iCMS Training Site:  
<https://www.nbs.train.pa.gov/toolbar/login.aspx>
  - See the Exercise sheet for your login and password
- Navigate to the “Pending Referrals” grid
  - Complete 2 Referrals
  - Cancel 1 Referral



## Final Diagnosis Needed



**Case Management**



**User Administration**



**Pending Referrals**



**Final Diagnosis Needed**



**Completed Evaluations**

- Link to completed referrals for which a final diagnosis has not been entered yet

# Final Diagnosis Needed

## Search Filter

Enter the required search criteria below.

Start Date

End Date

### Final Diagnosis Needed – By Referral Date

Export to Excel  Items Overdue

Drag a column header here to group by that column

Select	Med Rec #	Newborn Id	Infant Last Name	Infant First Name	AKA Name	DOB	Gender	Birth Order	Birth Hospital	Mother Last Name	Mother First Name	DBS Submitter	Most recent FP DOC	Referral Completion Date	Referral Type	DX Due Date	CHN	DX	Evaluation Status
Select	922	PA15	BAR			01/01/2016	Male		Harrisburg Hospital	BAf	KJ	Harrisburg Hospital	01/02/2016	1/5/2017	CAH - Endocrin... CAH		Angela Collins		In Progress
Select	H71	PA15	HOC			04/01/2016	Male		Chambersburg Hospital	HO	AL	Chambersburg Hospital	04/02/2016	4/27/2017	CAH - Endocrin... CAH				In Progress
Select	000	PA14	ABB			04/02/2015	Male		West Penn Hospital	ABf	KJ	West Penn Hospital	04/04/2015	7/18/2017	CAH - Endocrin... CAH				In Progress
Select	829	PA15	YUN			05/25/2017	Female	Not Multiple Birth	Moses Taylor Hospital	YUI	NJ	Moses Taylor Hospital	05/27/2017	8/1/2017	CAH - Endocrin... CAH		Nastassia Varabei	No disorder detected	In Progress

- Lists all completed referrals that are awaiting a final diagnosis
- Defaults to cases requiring a final diagnosis within the past 366 days
- Use the filter options on the top to change the default settings
- Click “Select” to view and edit a record

# Final Diagnosis Needed

**Edit CAH Diagnostic Results**

\* Diagnosis Date

\* Diagnosis

If Other, please specify

Treatment Started

\* Was diagnosis made prenatally?

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\* Was a confirmatory serum 17-OHP level obtained?

If yes, answer the following questions

\* Was there a value at baseline?

\* Was Serum 17-OHP level tested before initiation of treatment?

\* Was there a result after ACTH stimulation?

\* Was ACTH stimulation tested before initiation of treatment?

- Diagnostic Results form opens in edit mode
- There is a separate form for each disorder type, and it matches the current workbook format
- Mandatory field indicators (\* and \*) and drop-downs function the same way as they do on the “Edit Referral” form

# Final Diagnosis Needed

Ambiguous genitalia with 46,XX karyotype  
 Normal genitalia with 46,XX karyotype  
 Other hormonal evidence of CAH

**Comments**

**Created Date**  
 01/05/2017  
**Created By**  
 Daniel LaGonterie

**Final Diagnosis**

- Enter additional information in “Comments”
- If it is the final diagnosis, check the box
- Click “Save” to update the Dx result
- Click “Cancel” to exit without saving changes
- If unable to save, scroll to the top of the screen for warnings and errors

**Note:** To cancel a diagnostic result, go to the “Edit Referral” screen and cancel it.

[Return to CAH Diagnostic Results Grid](#)

# Final Diagnosis Needed

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**Case Information**

- Demographics (C)
- Referrals
- Document Capture
- Dried Blood Spot**
- Laboratory Results
- Lab Demographics
- CAH Diagnostic Results

**Newborn ID:** Infant Name: KAI Gender: Female  
**Case Status:** Closed Mother's Name: KAI Date of Birth:  
**Birth Order:** Not Multiple Birth Mother DOB: 06/19/1984 Birth Weight: 435 grams  
**Filter Paper #:** Submitter Name: Abington Memorial Hospital Results Released:  
**TPN:** Birth Facility: Abington Memorial Hospital PCP: Good Samaritan Pediatrics  
**Transfused Date:** 08/17/2016 MRN #: PCP Phone: (717) 272-7695  
**Gestation Age:** 23 Collection Date: 08/17/2016 @ 09:00 Hearing Date: 08/09/2017  
**Pulse Ox Date:** Pulse Ox Result: Not Performed Reason: Prenatal Dx

**CAH Diagnostic Results**

	Evaluation Status	Diagnosis Date	Referral Date	Diagnostic Provider	CAH Results	Created Date	Created By
<a href="#">Select</a>	Completed	08/31/2017	08/31/2017	Pediatric Alliance Pediatric Endocrine/Diabetes- ENDOTC	Congenital Adrenal Hyperplasia	08/31/2017	Kim State Admin
<a href="#">Select</a>	In Progress	08/31/2017	08/31/2017	Pediatric Alliance Pediatric Endocrine/Diabetes- ENDOTC	Congenital Adrenal Hyperplasia	08/31/2017	Kim State Admin

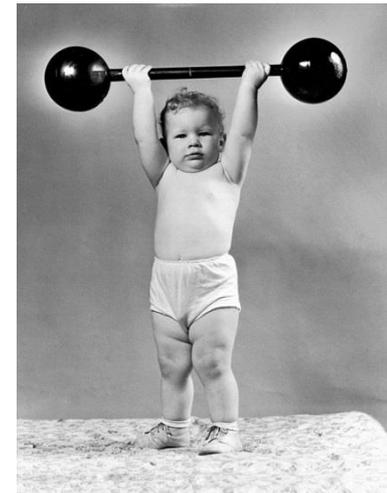
Cancel  
Retry

- If “Final Diagnosis” was checked, the “Evaluation Status” will be updated to “Completed”, else it will stay as “In Progress”
- The record will be removed from the “Final Diagnosis Needed” grid and added to the “Completed Evaluations” grid
- To view and edit a record, click “Select” next to it

## Final Diagnosis Needed - Exercise

- Go to the “Final Diagnosis Needed” grid
- Enter a confirmed diagnosis and make final for 2 cases
- Enter “No Disorder Detected” and make final for a case

**Remember:** To cancel a diagnostic result, you must go back to the “Edit Referral” screen and cancel it.



# Completed Evaluations

- Home
- Release Notes
- Contact Us
- Logout



**Case Management**



**User Administration**



**Pending Referrals**



**Final Diagnosis Needed**



**Completed Evaluations**

- Link to all completed cases

# Completed Evaluations

**Search Filter**  
Enter the required search criteria below.

Start Date: 7/6/2017    End Date: 8/5/2017

---

Completed Evaluations – By Diagnosis Date

Drag a column header here to group by that column

Select	Med Rec #	Newborn ID	Infant Last Name	Infant First Name	AKA Name	DOB	GENDER	Birth Order	Birth Hospital	Mother Last Name	Mother First Name	DBS Submitter	Most Recent FP#	Referral Completion Date	Referral Type	DX Due Date	DX Date	CHN	Evaluation Status	DX
Select	922	PA15	BAR			1/1/2016	Male		Harrisburg Hospital	BAR	K	Harrisburg Hospital	1/2/2016	1/5/2017	Endocrinology CAH	1/5/2017	8/5/2017	Angela Collins	Completed	No disorder detected

- Allows quick review of completed cases
- Lists only the records that have the “Final Diagnosis” checkbox marked
- By default displays records with a final diagnosis date in the past 30 days
- To view a record, click “Select” next to it

**Tip:** Filter on the “Dx” column to find confirmed diagnostic results.

## Completed Evaluations - Exercise

- Go to the “Completed Evaluations” grid
- Filter the grid to find cases with confirmed diagnosis
- Select a case with confirmed diagnosis and edit the diagnostic result record by adding a note “Dx reviewed with family” and your name
- Save the Dx with the note



## Case Management



**Case Management**



**User Administration**



**Pending Referrals**



**Final Diagnosis Needed**



**Completed Evaluations**

- Allows users to search for specific cases based on selected criteria

# Case Management

Newborn ID	<input type="text"/>	Mother's First Name	<input type="text"/>
Filter Paper #	<input type="text"/>	Mother's Last Name	<input type="text"/>
Medical Record #	<input type="text"/>	Mother's DOB	<input type="text" value="▼"/>
Infant Last Name	<input type="text"/>	Mother's Phone #	<input type="text"/>
From Date of Birth	<input type="text" value="▼"/>	Birth Facility	<input type="text" value="⋮"/>
To Date of Birth	<input type="text" value="▼"/>	Submitter's Name	<input type="text" value="⋮"/>
Gender	<input type="text" value="▼"/>	Case Status	<input type="text" value="▼"/>

<input type="button" value="Search"/>	<input type="button" value="Reset"/>
---------------------------------------	--------------------------------------

- To find a record, enter a value in one or more of the fields and click “Search”
  - A combination of fields can be used, e.g. Infant Last Name and DOB
  - Wildcard cards can also be used, e.g. Infant Last Name as “SM\*”
- Click “Reset” to clear the search
- If the search returns more than 10,000 records, a warning message will be displayed

# Case Management

Newborn ID	<input type="text"/>	Mother's First Name	<input type="text"/>
Filter Paper #	<input type="text"/>	Mother's Last Name	<input type="text"/>
Medical Record #	<input type="text" value="866700"/> x	Mother's DOB	<input type="text" value="v"/>
Infant Last Name	<input type="text"/>	Mother's Phone #	<input type="text"/>
From Date of Birth	<input type="text" value="v"/>	Birth Facility	<input type="text" value="..."/>
To Date of Birth	<input type="text" value="v"/>	Submitter's Name	<input type="text" value="..."/>
Gender	<input type="text" value="v"/>	Case Status	<input type="text" value="v"/>

## Filter Paper(s)

Drag a column header here to group by that column

Select	Newborn ID	Filter Paper #	Med Rec #	Infant Last Name	DOB	Gender	Mother First Name	Mother Last Name	Mom DOB	Phone	Birth Facility
<input type="button" value="Select"/>	xxx123	abc123	866700	Test	3/1/2017	Male	PAULA	Test			Unknown Birth Facility

## Case(s)

Drag a column header here to group by that column

Select	Newborn ID	Filter Paper #	Med Rec #	Infant Last Name	DOB	Gender	Mother First Name	Mother Last Name	Mom DOB	Phone	Birth Facility

- Click "Select" to view a record from the search results

# Case Management

Home	Contact Us	Search	Logoff	Screen 1 of 3 < Prev	1	2	3	Next >
<b>Case Information</b> ◦ Demographics (C) ◦ Referrals ◦ Document Capture <b>Dried Blood Spot</b> ◦ Laboratory Results ◦ Lab Demographics ◦ CAH Diagnostic Results	<b>Newborn ID:</b> <b>Case Status:</b> Closed <b>Birth Order:</b> Not Multiple Birth <b>Filter Paper #:</b> <b>TPN:</b> <b>Transfused Date:</b> 08/17/2016 <b>Gestation Age:</b> 23 <b>Pulse Ox Date:</b>	<b>Infant Name:</b> KA <b>Mother's Name:</b> KA <b>Mother DOB:</b> 06/19/1984 <b>Submitter Name:</b> Abington Memorial Hospital <b>Birth Facility:</b> Abington Memorial Hospital <b>MRN #:</b> <b>Collection Date:</b> 08/17/2016 @ 09:00 <b>Pulse Ox Result:</b> Not Performed	<b>Gender:</b> Female <b>Date of Birth:</b> <b>Birth Weight:</b> 435 grams <b>Results Released:</b> <b>PCP:</b> Good Samaritan Pediatrics <b>PCP Phone:</b> (717) 272-7695 <b>Hearing Date:</b> 08/09/2017 <b>Reason:</b> Prenatal Dx	<input type="button" value="Cancel"/> <input type="button" value="Retry"/>				

The header of a case has several components:

- The center, blue banner identifies the infant
- The left-side navigation menu includes links for other case details
- The right top corner allows for system navigation
  - **Cancel** - Return to the previous screen
  - **Retry** - Return to the grid from where you selected the case
  - **Prev** and **Next** - Allow you to view additional filter papers for the case

# Case Menu

<b>Case Information</b>
○ Demographics (C)
○ Referrals
○ Document Capture
<b>Dried Blood Spot</b>
○ Laboratory Results
○ Lab Demographics
○ Metabolic Diagnostic Results
○ Hemoglobin Diagnostic Results
○ Cystic Fibrosis Diagnostic Results
○ CH Diagnostic Results
○ CAH Diagnostic Results
○ SCID Diagnostic Results

- **Demographics** – current demographic data for the case
- **Referrals** – all referrals for the case
- **Document Capture** – lab reports and other case documents; .doc, .docx, .xls, .xlsx, .pdf, .jpg, .gif and .png files
- **Laboratory Results** – filter paper results
- **Lab Demographics** – demographics from the filter paper
- **Diagnostic Results** – diagnostic results for the case

# Case Demographics

**Patient Information**

\* Newborn ID PA9990  
 DBS CHN  
 POC-Hearing CHN  
 POC-CHD CHN  
 Infant Last Name BABY  
 Infant First Name BOY  
 Gender Male  
 Race  White  
 Black  
 Asian  
 Native Indian/Alaskan  
 Other  
 Hawaii/Pacific Island  
 Not Indicated  
 Hispanic Origin  
 Multiple Races  
 Newborn Hispanic  
 Birth Order  
 \* Date of Birth 1/17/2017  
 Birth Time 1233  
 Birth Weight 3200  
 Medical Record Number 2090  
 Medical Assistance  
 Transfused  
 Transfused Date  
 Antibiotics  
 AKA Last Name  
 AKA First Name  
 TPN  
 Carnitine Supplement  
 NICU  
 Guardian's First Name  
 Guardian's Last Name

**Mother's Information**

Mother Last Name MARY  
 Mother First Name JABNE  
 Mother Initial  
 Street Address  
 Zip Code  
 City  
 State PA  
 Mother's County  
 Home Phone  
 Cell Phone  
 Work Phone Work Extension  
 Mother DOB  
 Email Address

**Emergency Contact**

Emergency Contact UNCLE JOE  
 Emergency Contact # 939-698-9989  
 Emergency Contact Info This is a new entry for Emergency contact info.

**Birth Hospital Information**

Birth Hospital ID  
 Edit Save Cancel

- Displays the most recent demographic information in view-only mode
- If you have more recent demographic information, please email it to the CHN assigned to this case

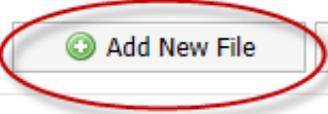
## Document Capture - Add

 **Document Capture**

Drag a column header here to group by that column

View Document	Comment	▼	Saved by	▼	Date Saved	▼	Select
	<input type="text"/>	🔍	<input type="text"/>	🔍	<input type="text"/>	🔍	

No data to display

  Add New File  Delete Selected

- Click “Add New File”

# Document Capture - Add

**+ Add New Document**

Description:

Select Image File:  **Browse...**

[Return to "Document Capture Grid"](#)

- Click "Browse" to locate the file

**+ Add New Document**

Description:

Select Image File:  **Browse...**

**Upload**

[Return to "Document Capture Grid"](#)

- Once selected, add a description and click "Upload"

# Document Capture - Add

**+ Add New Document**

Description:

Select Image File:

**File has been uploaded successfully. Please click the 'Submit' button to store the file in the database so you can view it later.**

**Image preview is not available for this type of document!**

[Return to "Document Capture Grid"](#)

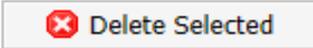
- File types supported: .doc, .docx, .xls, .xlsx, .pdf, .jpg, .gif and .png
- If system accepts the image type and description, you will be prompted to "Submit"

# Document Capture - View

 **Document Capture**

Drag a column header here to group by that column

View Document	Comment	Saved by	Date Saved	Select
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Parents Consent Form	TCA_CAH	08/05/2017	<input type="checkbox"/>

- To view an existing document, click 

# Laboratory Results

Select	Group	Disorder	Mnemonic	Comment	Status
	<input type="text"/>				
Select	T4 and TSH	T4 (CH)	WNL	Within Normal Limits	Normal
Select	AA	AA	WNL	Within Normal Limits	Normal
Select	AA	MSUD	WNL	Within Normal Limits	Normal
Select	AA	PKU	WNL	Within Normal Limits	Normal
Select	Gal	GAL	WNL	Within Normal Limits	Normal
Select	Gal	GALBEU	WNL	Within Normal Limits	Normal
Select	CAH	CAH	WNL	Within Normal Limits	Normal
Select	Hgb	HGB	FA	Within Normal Limits	Normal
Select	BIO	BIO	WNL	Within Normal Limits	Normal
Select	CF	CF	WNL	Within Normal Limits	Normal
Select	SCID	SCID	WNL	Within Normal Limits	Normal
Select	AC	AC	WNL	Within Normal Limits	Normal

Select	Testcode	Testnam	Value
Select	00053	T4 CH	16.10

- “Select” the test to view the result values



# Lab Demographics

## Lab Demographics Screen

### Child's Information      Submitter / Physician

<p>Newborn ID PA1500                  Filter Paper # PA1500                  Name BAR                  Collection Date / Time 01/02/2016 @ 0950                  Med Rec Number 92208                  Birth Date / Time 01/01/2016 @ 0924                  Sex Male                  Race White                  Hispanic No                  Birth Order                  Birth Weight 2296 grams                  Current Weight                  Transfused No                  Trans Date/Time                  Specimen Age 63                  Specimen Type Initial Specimen                  Age of Collection 24                  Date Spec Received 01/05/2016                  NICU No                  Hyperal                  Carnitine                  Meconium Ileus                  Antibiotics                  Weeks Gestation 37</p>	<p>Submitter Harrisburg Hospital                  Address 111 S Front Street Harrisburg PA 17101                    Phone (717) 782-3131                  Fax (717) 782-5980                    Physician Name ANN BOGDAN                  Address                  City                  State                  Zip Code                  Phone (717) 691-1212                    Birth Hospital Harrisburg Hospital                  Address 111 S Front Street Harrisburg PA 17101                  Phone (717) 782-3131</p>
---	---

- View only
- Populated from the filter paper

### Mother's / Guardian's Information      Mother's Medical History

<p>Mother's Name                  Mother's DOB 08/30/1998                  Mailing Address                  City CARLISLE                  State PA                  County CUMBERLAND                  Zip Code 17013                  Email Address                  Phone (717)                  Medical Assistance                    Emergency Contact KARA                  Emergency Phone (717)                  Emergency Contact Info                    Guardian's First Name                  Guardian's Last Name</p>	<p>Thyroid Disease                  Diabetes                  On Sterioids                  Maternal Hepatitis NEG                  Other</p>
--	---

## Case Management – Exercise

- Go to Case Management
  - Search for NB ID# PA160206680
- Search and Select a case
  - Use the left-hand side menu to review the case
    - Demographics
    - Lab Results
    - Lab Demographics
    - Document Capture
      - View Lab Report



Jon Whittle

## User Administration

Home

Release Notes

Contact Us

Logout



**Case Management**

Only available to TC Administrators



**User Administration**



**Pending Referrals**



**Final Diagnosis Needed**



**Completed Evaluations**

TC Administrators can:

- Create New Users
- Unlock Users
- Reset Passwords

# User Administration

Add New User

Status: Active Inactive Locked

Drag a column header here to group by that column

Select	User ID	User Name	Full Name	Email	Phone	Last Login	Organization	Audits	Reset Password
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
Select	745	JSMITH	Joe Smith	LISA.HUDSON@NAT...	( ) -			Audit	Reset Password
Select	746	SGREEN	Sara Green	LISA.HUDSON@NAT...	( ) -			Audit	Reset Password
Select	680	TCU_CAH	TC User CAH Test Staging	DONI.ANTONELLI@N...	( ) -	7/27/2017 3:25:07 AM		Audit	Reset Password

- Lists all users in your affiliated facilities
- Has color coded entries for active, inactive and locked users

# Add Users

[Add New User](#)

Status: Active Inactive Locked

Drag a column header here to group by that column

Select	User ID	User Name	Full Name	Email	Phone	Last Login	Organization	Audits	Reset Password
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
<a href="#">Select</a>	680	TCU_CAH	TC User CAH Test Staging	DONI.ANTONELLI@N... () -		7/27/2017 3:25:07 AM		<a href="#">Audit</a>	<a href="#">Reset Password</a>

- Click “Add New User”



# Add Users

< Prior    Next >

User ID	Roles	Affiliations	User Information
* User Name			JSMITH
* Full Name			Joe Smith

*\* Indicates required field*

Save    Cancel

- Enter the user name and full name
- Use the first name initial + last name as the user name
- If the username already exists, add a number at the end, e.g. JSMITH2

# Add Users

< Prior    Next >

User ID    **Roles**    Affiliations    User Information

**Roles**     Treatment Center User - CAH

Save    Cancel

- Select the user’s role, which should be limited to:
  - “Treatment Center User” + Disorder
- Note that TC Admins can only create TC users with the same disorder

# Add Users

< Prior **Next >**

User ID Roles **Affiliations** User Information

**Affiliations**

#	ID	Description
No data to display		

Page 1 of 0 (0 items) < Prev Next >

**Providers**

*\* Do NOT press Enter while filtering affiliations or your screen will refresh and data will be lost.*

#	ID	Description
	TC06ENDO	The Childrens Hospital of Philadelphia - ENDOTC

**Add**

Save Cancel

- Select the user's affiliations
- TC Admins can only create users with the same affiliations

# Add Users

< Prior    Next >

User ID    Roles    Affiliations    **User Information**

\* Indicates Mandatory Field

Phone ( ) -

Fax ( ) -

\* Email joe.smith@childhosp.org

Title

Organization

Address

City

\* State PA

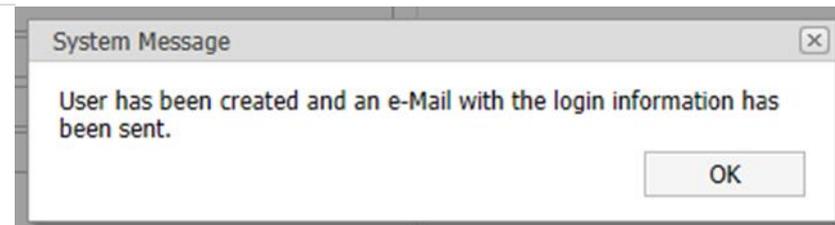
\* Zip Code 19019 x

Active

**Save**    Cancel

- Enter the mandatory information
- Click “Save”

If the configuration for the user account is correct, a confirmation message will display



# Add Users

The items below require attention:

- It is required to select at least one affiliate.



< Prior   Next >

User ID   Roles   Affiliations   **User Information**

\* Indicates Mandatory Field

Phone ( ) -

Fax ( ) -

\* Email joe.smith@childhosp.org

Title

Organization

Address

City

\* State PA

\* Zip Code 19019 x

Active

Save   Cancel

- If any required data is missing, a red prompt will display on the top of the “User Information” Tab
- Enter the missing data, and click “Save” again

# Add Users



- An email will automatically be sent to the new user with their user name and initial temporary password
- The users will have 14 days to setup their new password and security question or the TC Administrator will need to reset the password for them
- Email is sent from [customersupport@neometrics.com](mailto:customersupport@neometrics.com)

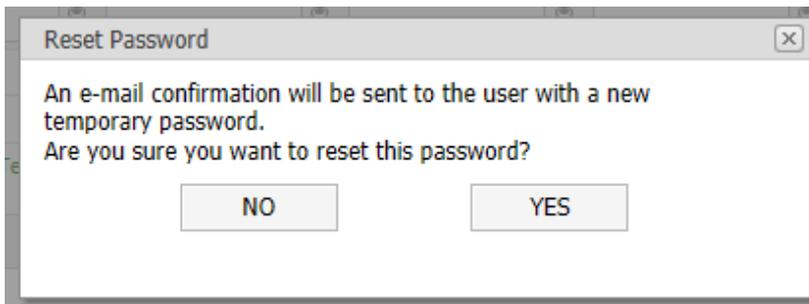
# Reset Password

Add New User

Status: Active Inactive Locked

Drag a column header here to group by that column

Select	User ID	User Name	Full Name	Email	Phone	Last Login	Organization	Audits	Reset Password
Select	1721	da_hspuser	Doni HSP User Test	DONI.ANTONELLI@N...	( ) -	7/10/2017 1:32:56 PM		Audit	Reset Password



- Click “Reset Password” to reset the password for a user
- A prompt will confirm the reset and an email will be sent to the user with their new temporary password

# Unlock User

Add New User

Status: Active Inactive Locked

Drag a column header here to group by that column

Select	User ID	User Name	Full Name	Email	Phone	Last Login	Organization	Audits	Reset Password
<a href="#">Select</a>	1721	da_hspuser	Doni HSP User Test	DONI.ANTONELLI@N...	( ) -	7/10/2017 1:32:56 PM		<a href="#">Audit</a>	<a href="#">Reset Password</a>
<a href="#">Select</a>	1748	jsmith2	John Smith	LISA.HUDSON@NATU...	( ) -			<a href="#">Audit</a>	<a href="#">Reset Password</a>

- Click “Select” to view the user details
- Click through the configuration tabs until you get to the “User Information” tab

## Unlock User

< Prior    Next >

User ID   Roles   Affiliations   **User Information**

\* Indicates Mandatory Field

Phone ( ) -

Fax ( ) -

\* Email LISA.HUDSON@NATUS.COM

Title

Organization

Address

City

\* State PA

\* Zip Code 99999

Active  ←

Save    Cancel

- Check the “Active” box
- Click “Save”

# Inactivate User

< Prior   Next >

User ID   Roles   Affiliations   **User Information**

\* Indicates Mandatory Field

Phone ( ) -

Fax ( ) -

\* Email LISA.HUDSON@NATUS.COM

Title

Organization

Address

City

\* State PA

\* Zip Code 99999

Active  ←

Save   Cancel

- Uncheck the “Active” box
- Select “Save”

Status: Active Inactive Locked

Drag a column header here to group by that column

Select	User ID	User Name	Full Name	Email	Phone	Last Login	Organization	Audits	Reset Password
Select	745	JSMITH	Joe Smith	LISA.HUDSON@NAT...	( ) -			Audit	Reset Password
Select	746	SGREEN	Sara Green	LISA.HUDSON@NAT...	( ) -			Audit	Reset Password

## User Administrator - Exercise

- Add new user
- Inactive a user
- Re-active a user



# TC Responsibilities

## **Following the PA iCMS TC Training Course**

- Within 2 weeks of attending this training
  - train the team members
  - complete proficiency exercises
  - coordinate a go-live date with Lisa Hudson
  - participate in weekly TC Training Support WebEx for a total of 6 weeks

## **Go-Live**

- Begin updating all referrals and diagnostic results directly in iCMS

## Questions



**Lisa Hudson**

[Lisa.Hudson@Natus.com](mailto:Lisa.Hudson@Natus.com)

800-645-3616 x 4193

**Kelly Holland**

[kholland.pa.gov](mailto:kholland.pa.gov)

717-783-8143

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866-639-3439

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