

# LEWIS AND CLARK INFORMATION EXCHANGE

Powered by Cerner



## Health Homes

# LACIE Collaborative

- As of April 1, 2013 LACIE is an independent 501 (c)(3) with no owner, governed by a perpetual and collaborative Board of Directors
- Opt-out Exchange
- LACIE has no debt – viable and sustainable
- One of 2 approved HIOs in Kansas through June of 2015
- Operations are based in Kansas City
- Cerner is technology partner
- LACIE is vendor agnostic and access to the HIO can be embedded into numerous certified EMRs

- Executive Committee

- Dr. Greg Ator – University of Kansas Hospital, Chair
- Dr. Laura Fitzmaurice – Children’s Mercy, Vice Chair
- Jack Wagner – Shawnee Mission, Treasurer
- Dr. Joe Boyce – Heartland Health, Secretary
- Mitzi Cardenas – Truman, Exec. Comm. Member at Large

- **Current Board Members**
  - Dr. David Nill – Cerner (Large Employer)
  - Ben Ernst– CEO Northwest Health Services (FQHC)
  - Jill Watson – CEO KCMPPA (Independent Providers)
  - TBD– Olathe Health System ( Community Hosp.)
  - Art Fisk – CIO NKCH (Community Hospital)
  - Harold Johnson – Consumer Advocate

# Required Services

Medicaid health homes must provide the following services:

- Comprehensive care management
- Care coordination and health promotion
- Comprehensive transitional care, including appropriate follow-up, from inpatient to other settings
- Patient and family support (including authorized representative)
- Referral to community and social support services, if relevant
- Use of health information technology (HIT) to link services

# Data LACIE Can Exchange

Demographics

Problem List

Allergies

Medications

Social History

History & Physical

Discharge Summary

Clinic Notes & Visits

Clinical Results

Lab Orders/ Results

Radiology Reports

Microbiology

Anatomical Pathology

**NOTE: Viewable data is dependent on what is provided by the EMRs**

dittemm

## LEWIS AND CLARK INFORMATION EXCHANGE

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**Disclaimer: [Hide]**  
 This record is an aggregate summary of medical information obtained from multiple participating healthcare providers. This clinical summary is intended to support optimal patient care. It is not intended to replace the patient's medical record nor is it guaranteed to encompass all historical information on this patient. It is provided to you in conformation with patient privacy requirements.

**MERCY MELACIE TESTPT**   Female   41 Years   DOB: 03/15/1972   HIE ID: 0000117575   PCP: CPOEPHYSICIAN TEST   Home Phone: 816-272-7272

Page Search:

**Conditions (Problems) - [Default: All Historical]**   [Details](#) [Print](#) [-/+](#)

Problem	Status	Onset Date	Code	Source
OTITIS MEDIA - UNSPECIFIED	Active		382.9 (ICD9)	NWH
Lung cancer	Active		162.9 (ICD-9-CM)	HRMC
Dysfunction of Eustachian Tube	Active	08/24/2010	381.81 (ICD-9-CM)	HRMC
Depression	Active		311 (ICD-9-CM)	HRMC
ADHD (Attention Deficit Hyperactivity Disorder)	Active	03/15/1975	314.01 (ICD-9-CM)	HRMC

**Diagnosis - [Default: All Historical]**   [Details](#) [Print](#) [-/+](#)

Diagnosis	Status	Date	Code	Type	Priority	Source
< >						

**Procedures - [Default: All Historical]**   [Details](#) [Print](#) [-/+](#)

Procedure	Code	Date	Performer	Source
< >				

**Medications (RX And Documented Historical/Home Medications) - [Default: All Historical]**   [Details](#) [Print](#) [-/+](#)

Medication name	Details	Status	Order Date	Source
Zomig	, Q24H, Refills: 0	Documented	12/17/2010	HR
vancomycin 1 g intravenous injection	, Refills: 0	Documented	05/25/2012	HR
vancomycin	1 gm. daily. IV. Refills: 0	Documented	05/25/2012	HR

**Vital Signs / Clinical Results - [Default: All Historical]**   [Switch](#) [Last 6 Results](#) [Print](#) [-/+](#)

Name/Measurement	Most Recent	Previous	Previous	Previous
Systolic Blood Pressure	120 mmHg	132 mmHg [H]	125 mmHg	
Diastolic Blood Pressure	80 mmHg	85 mmHg [H]	90 mmHg [H]	
Height	130.0 cm			
Weight	65.000 kg			
Respiratory Rate	16 br/min	20 br/min	25 br/min	22 br/min
Mean Arterial Pressure	93.33 mmHg			
Temperature Oral	36.8 DegC	37.0 DegC	37.5 DegC	38.0 DegC [H]

**Radiology - [Default: All Historical]**   [Details](#) [Print](#) [-/+](#)

Report Name	Performed by	Date Completed	Status	Source
< >				

**History & Physical - [Default: All Historical]**   [Details](#) [Print](#) [-/+](#)

Report Name	Performed by	Date Completed	Status	Source
History and Physical	Groce, Randy	06/30/2010 09:53:00 AM	completed	HRMC
< >				

**Discharge Summary - [Default: All Historical]**   [Details](#) [Print](#) [-/+](#)

Report Name	Performed by	Date Completed	Status	Source
< >				

**Provider Reports - [Default: All Historical]**   [Details](#) [Print](#) [-/+](#)

# Search Functionality

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Page Search:  x

### Conditions (Problems) - [Default: All Historical]

[Details](#) [Print](#) [-/+](#)

Problem	Status	Onset Date	Code	Source
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Depression	Active		311 (ICD-9-CM)	HRMC
ADHD (Attention Deficit Hyperactivity Disorder)	Active	03/15/1975	314.01 (ICD-9-CM)	HRMC

### Diagnosis - [Default: All Historical]

[Details](#) [Print](#) [-/+](#)

Diagnosis	Status	Date	Code	Type	Priority	Source
[Empty Row]						

### Procedures - [Default: All Historical]

[Details](#) [Print](#) [-/+](#)

Procedure	Code	Date	Performer	Source
[Empty Row]				

### Medications (RX And Documented Historical/Home Medications) - [Default: All Historical]

[Details](#) [Print](#) [-/+](#)

Medication name	Details	Status	Order Date	Source
Zomig	, Q24H, Refills: 0	Documented	12/17/2010	HRMC
vancomycin 1 g intravenous injection	, Refills: 0	Documented	05/25/2012	HRMC

### Vital Signs / Clinical Results - [Default: All Historical]

[Switch](#) [Last 6 Results](#) [Print](#) [-/+](#)

Name/Measurement	Most Recent	Previous	Previous	Previous
Systolic Blood Pressure	120 mmHg	132 mmHg [H]	125 mmHg	
Diastolic Blood Pressure	80 mmHg	85 mmHg [H]	90 mmHg [H]	
Height	130.0 cm			
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Temperature Oral	36.8 DegC	37.0 DegC	37.5 DegC	38.0 DegC [H]

### Radiology - [Default: All Historical]

[Details](#) [Print](#) [-/+](#)

Report Name	Performed by	Date Completed	Status	Source
[Empty Row]				

### History & Physical - [Default: All Historical]

[Details](#) [Print](#) [-/+](#)

Report Name	Performed by	Date Completed	Status	Source
History and Physical	Groce, Randy	06/30/2010 09:53:00 AM	completed	HRMC

### Discharge Summary - [Default: All Historical]

[Details](#) [Print](#) [-/+](#)

Report Name	Performed by	Date Completed	Status	Source
[Empty Row]				

### Provider Reports - [Default: All Historical]

[Details](#) [Print](#) [-/+](#)

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Medication name	Details	Status	Order Date	Source
No matching records found				

Allergies - [Default: All Historical] Details Print -/+

Substance	Reaction	Severity	Status	Source
No matching records found				

Immunization / Vaccine History - [Default: All Historical] Details Print -/+

Immunization	Date Given	Status	Source
No matching records found			

Lab Orders - [Default: All Historical] Details Print -/+

[Past 6 Mo's](#)
[Past Year](#)
[Past 18 Mo's](#)
[Past 2 Years](#)
[Past 3 Years](#)
[All Historical](#)

Order Name	Ordering Provider	Date Ordered	Age	Status	Source
CHEM12	Roberts, Rebecca L	11/28/2011 03:40:45 PM	1 Years	completed	HRMC
CHEM12	Roberts, Rebecca L	10/06/2011 09:59:39 AM	1 Years	completed	HRMC
CHEM12	Roberts, Rebecca L	03/23/2010 02:38:55 PM	3 Years	completed	HRMC

Lab Results - [Default: All Historical] Switch Details Print -/+

[Past 6 Mo's](#)
[Past Year](#)
[Past 18 Mo's](#)
[Past 2 Years](#)
[Past 3 Years](#)
[All Historical](#)

Order Name	Results	Value	Reference Range	Date Resulted	Age	Comments	Source
CHEM12	BUN	15 mg/dL	10 - 20	11/28/2011 03:40:45 PM	1 Years	<a href="#">Comment</a>	HRMC
CHEM12	Glucose Level	654 mg/dL [H]	60 - 99	11/28/2011 03:40:45 PM	1 Years	<a href="#">Comment</a>	HRMC
CHEM12	Alk Phos	358 IU/L [H]	50 - 136	11/28/2011 03:40:45 PM	1 Years	<a href="#">Comment</a>	HRMC
CHEM12	Alk Phos	358 IU/L [H]	50 - 350	10/06/2011 09:59:39 AM	1 Years	<a href="#">Comment</a>	HRMC

Microbiology - [Default: All Historical] Details Print -/+

Order Name	Observation	Provider	Date Ordered	Status	Source
No matching records found					

Provider Reports - [Default: All Historical] Details Print -/+

Report Type	Report Name	Performed by	Date Completed	Status	Source
No matching records found					

Visits - [Default: All Historical] Details Print -/+

Location	Encounter Type	Reason For Visit	Attending Provider	ADM Date	DC Date	Source
No matching records found						

Searches include discrete data fields as well as free text. They can be alphanumeric in nature.

Results are highlighted and placed in chronological order

# Expectations

- **Lower rates of emergency department use** – through proactively monitoring patients for changes
- **Reduction in hospital admissions and readmissions** – ability to see information on other patient visits, home based monitoring sent to the EMR can be included in LACIE
- **Less reliance on long-term care facilities** – assists in making information more portable, care can be delivered in home
- **Improved care and outcomes** – multiple providers can see the same information to coordinate care, aid in reduction of medication errors
- **Reduction in health care costs** – reduction of redundant tests e.g. radiology, laboratory, respiratory, cardiology

# Safety and Security

- LACIE stores Electronic Protected Health Information (ePHI) at Cerner in NIST (National Institute of Standards and Technology) Certified, redundant servers ... “The Bunker”
- Data is encrypted not only during query but at rest as well
- LACIE engages a Compliance Auditing Privacy and Security (CAPS) Committee made up of professionals from LACIE participants that aid in the creation of policies and procedures
- LACIE undergoes a robust annual risk mitigation audit that is conducted by an independent organization
- One of the most stringent Master Patient Indexing (MPI) protocols in the country

# MPI

## Matching Points:

### Demographics fields :

- |              |             |           |
|--------------|-------------|-----------|
| • First Name | Middle Name | Last Name |
| • SSN**      | DOB         | Gender    |
| • Address*   | Phone       |           |

\*Address is actually broken up into smaller chunks to evaluate separately:

- Street address
- City
- State
- Zip

Records that are not a 99.21% or higher match from different organizations is kicked into a work queue and contributing sources are contacted to verify. 100% match required from same source.

# The Early Use Actual Case (Names have been changed)

Allison MaryJane Smith vs. Allison MaryJune Smith

## Matching Points:

Demographics fields :

- |                     |              |                  |
|---------------------|--------------|------------------|
| ▪ <b>First Name</b> | Middle Name  | <b>Last Name</b> |
| ▪ SSN**             | <b>DOB</b>   | <b>Gender</b>    |
| ▪ <b>Address*</b>   | <b>Phone</b> |                  |

\*Address is actually broken up into smaller chunks to evaluate separately:

- **Street address**
- **City**
- **State**
- **Zip**

*Match or not Match?*

# The Answer

Twins, one with a congenital heart problem the other no significant medical problems.



# Upcoming Enhancements

- **Connection to the Kansas Prescription Drug Monitoring Program or K-TRACS:** Will allow providers approved by Kansas Board of Pharmacy to query real time prescription history on schedule II, III or IV narcotics
- **SeeMyRadiology:** Will allow providers to see not only the Radiology Reports but the images that have been taken for improved transition of care
- **Patient Portal:** In process of doing due diligence regarding functionality and related cost of the portal
- **PAINS – KC:** Patients, Providers and LACIE coming together to improve care coordination of chronic pain patients in region

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