Order-Result Interface Basics

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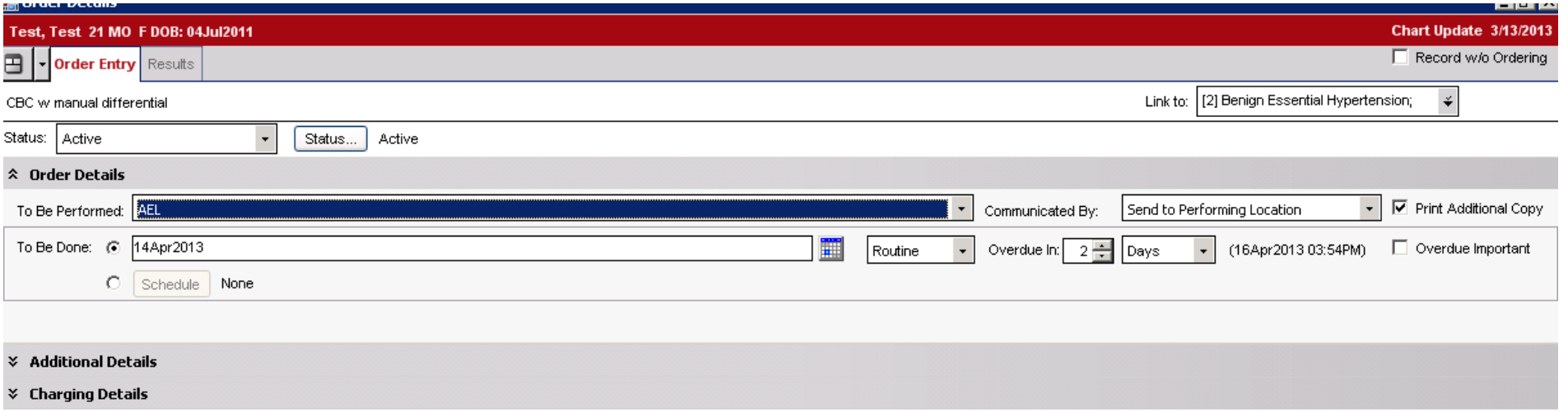
May 2013

Welcome

- **Order Result Flow**
- **Important Stored Procedures**
- **Requisition number/TW order number/MRN**
- **Important Dictionaries in the Works Database**
- **Common T-tables**
- **Tasking Logic**
- **Patient Matching**
- **Galen Resources for order-result**
- **Ways to enhance order-result interfaces**
- **Common interface errors**
- **Q&A – Chat and Live**

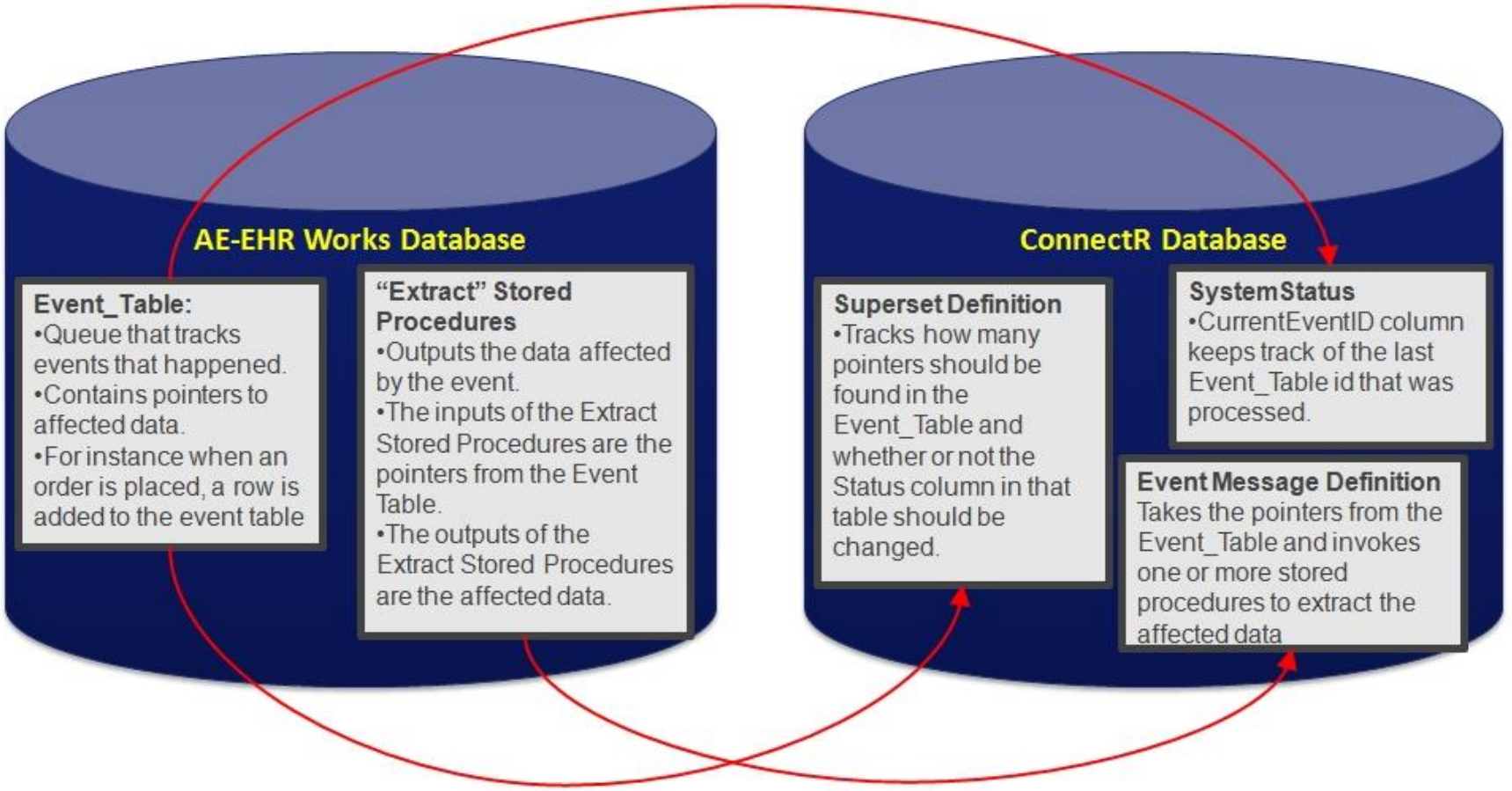
Order Result Flow

- **Order is placed in the EHR**



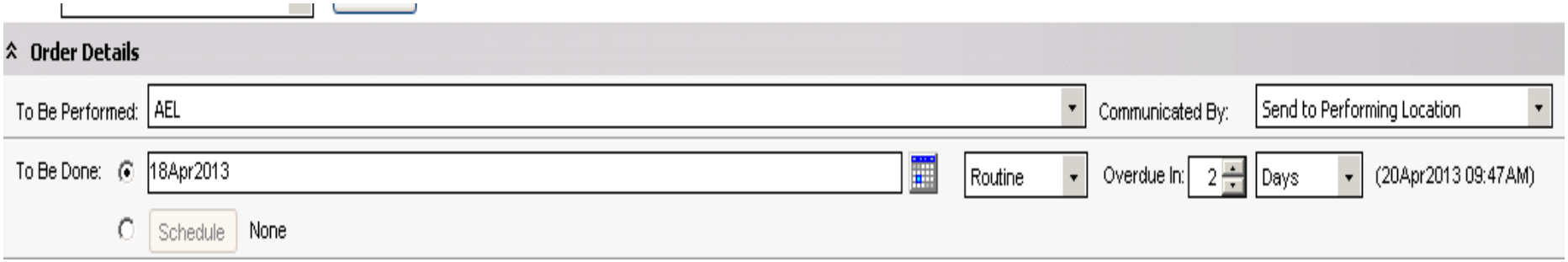
GALEN HEALTHCARE SOLUTIONS

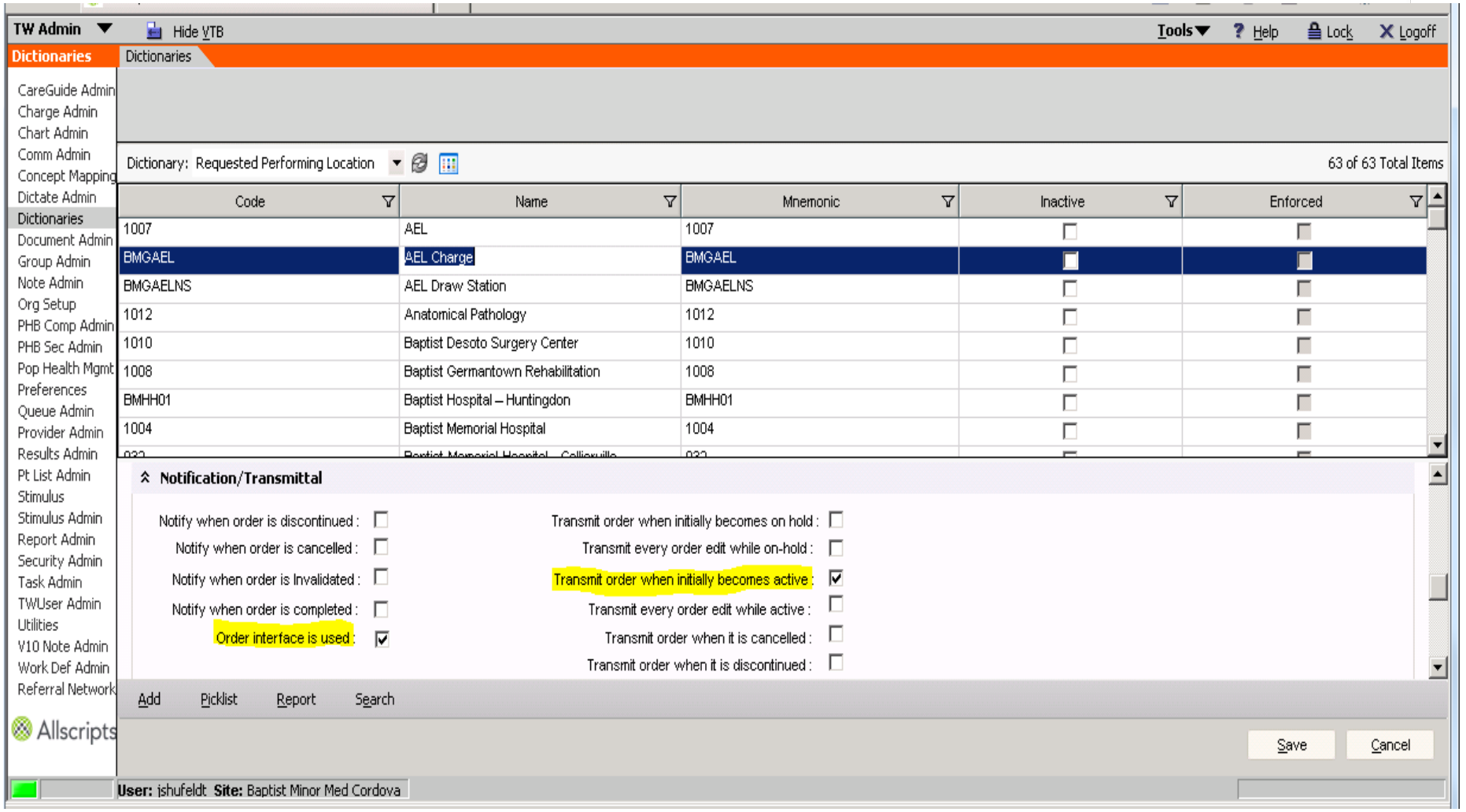
ConnectR Superset – Database Interaction



When the order does not make it to the Superset

- **Check your RPL settings**
  - Make sure the order is placed as send to performing location and the correct RPL is chosen
  - Make sure your settings are correct in the RPL dictionary
- **Make sure the order is in an active status**




TW Admin
Hide VTB
Tools
Help
Lock
Logoff
Dictionaries
Dictionaries
CareGuide Admin
Charge Admin
Chart Admin
Comm Admin
Concept Mapping
Dictate Admin
Dictionaries
Document Admin
Group Admin
Note Admin
Org Setup
PHB Comp Admin
PHB Sec Admin
Pop Health Mgmt
Preferences
Queue Admin
Provider Admin
Results Admin
Pt List Admin
Stimulus
Stimulus Admin
Report Admin
Security Admin
Task Admin
TWUser Admin
Utilities
V10 Note Admin
Work Def Admin
Referral Network
Allscripts
Dictionary: Requested Performing Location
63 of 63 Total Items
Code
Name
Mnemonic
Inactive
Enforced
1007 AEL 1007
BMGAEL AEL Charge BMGAEL
BMGAELNS AEL Draw Station BMGAELNS
1012 Anatomical Pathology 1012
1010 Baptist Desoto Surgery Center 1010
1008 Baptist Germantown Rehabilitation 1008
BMHH01 Baptist Hospital – Huntingdon BMHH01
1004 Baptist Memorial Hospital 1004
Notification/Transmittal
Notify when order is discontinued :
Notify when order is cancelled :
Notify when order is Invalidated :
Notify when order is completed :
Order interface is used :
Transmit order when initially becomes on hold :
Transmit every order edit while on-hold :
Transmit order when initially becomes active :
Transmit every order edit while active :
Transmit order when it is cancelled :
Transmit order when it is discontinued :
Add
Picklist
Report
Search
Save
Cancel
User: jshufeldt Site: Baptist Minor Med Cordova

When the order does not make it to the Superset

- **Check the service broker**
- **SQL Service broker is an architecture that allows you to write queuing and messaged based applications in the database**
  - Run this query in the database
    - Select is_broker_enabled FROM sys.databases WHERE name ='Works'
  - If a zero is returned, run the following query
    - ALTER DATABASE Works SET enable_broker WITH ROLLBACK IMMEDIATE

Order Result Flow

- **Order gets sent to the superset interface**
- **Order goes through mapping from superset to vendor order target**
- **Order leaves the outbound order target and gets sent to vendor**

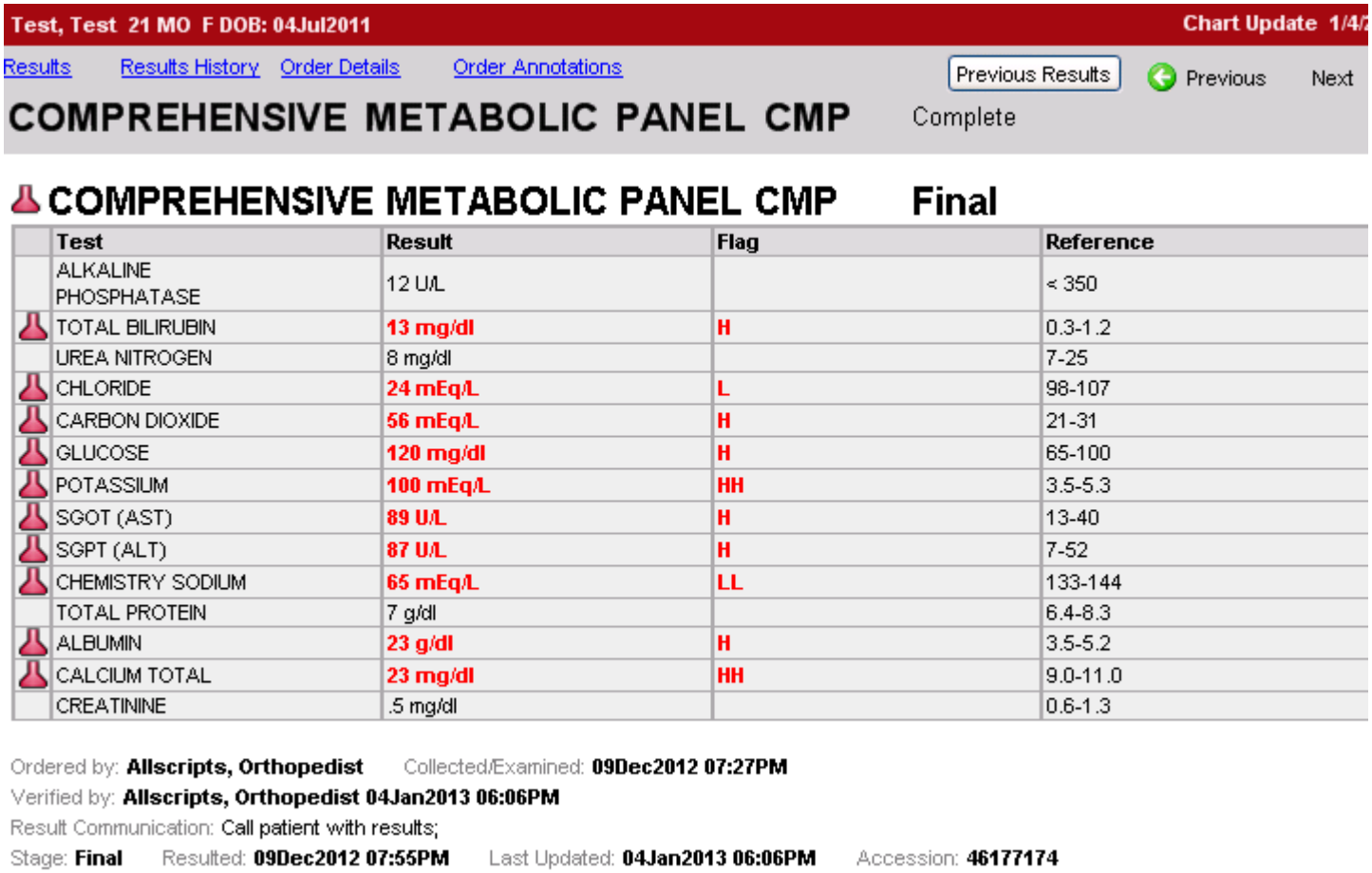
7000	Superset Outbound Source	----------	Connected	04/30/13 14:11:47	---	INTTEST1	3160
7001	----------	Lab Order Demo Target	Connected	04/30/13 20:18:29	0	INTTEST1	4368
7002	----------	Rad Order Demo Target	Not Running	12/08/11 18:29:32	50	INTTEST1	0

Order Result Flow

- **Result is sent from vendor to result source**
- **Result goes through mapping to Result target and gets to the patient chart**

7017	Result Demo Source	----------	Waiting	02/06/13 14:29:53	---	INTTEST1	5592
7018	----------	Lab Result Demo Target	Connected	04/29/13 21:19:29	0	INTTEST1	4972
7019	----------	Rad Result Demo Target	Connected	04/29/13 21:19:27	0	INTTEST1	4104

Order Result Flow



Test, Test 21 MO F DOB: 04Jul2011 Chart Update 1/4/

Results | Results History | Order Details | Order Annotations | Previous Results | Previous | Next

COMPREHENSIVE METABOLIC PANEL CMP Complete

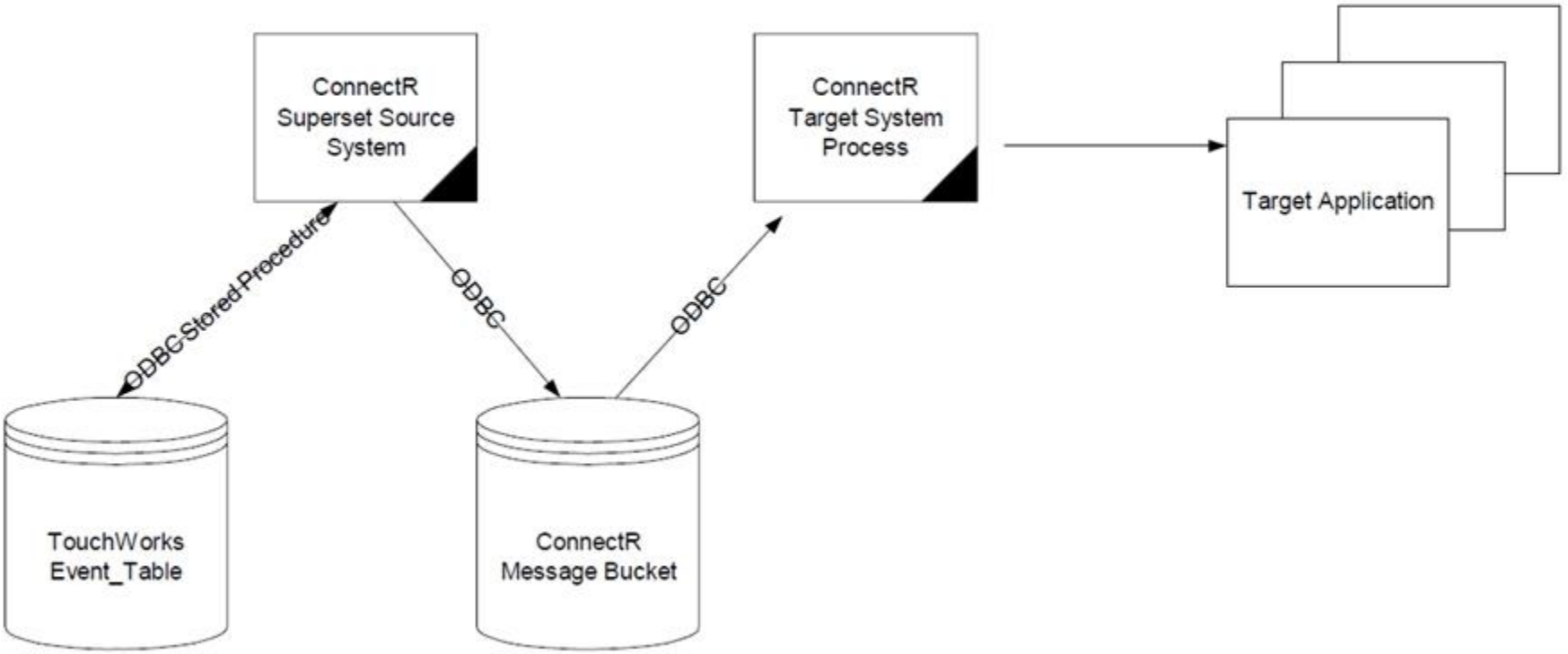
COMPREHENSIVE METABOLIC PANEL CMP **Final**

Test	Result	Flag	Reference
ALKALINE PHOSPHATASE	12 U/L		< 350
TOTAL BILIRUBIN	**13 mg/dl**	**H**	0.3-1.2
UREA NITROGEN	8 mg/dl		7-25
CHLORIDE	**24 mEq/L**	**L**	98-107
CARBON DIOXIDE	**56 mEq/L**	**H**	21-31
GLUCOSE	**120 mg/dl**	**H**	65-100
POTASSIUM	**100 mEq/L**	**HH**	3.5-5.3
SGOT (AST)	**89 U/L**	**H**	13-40
SGPT (ALT)	**87 U/L**	**H**	7-52
CHEMISTRY SODIUM	**65 mEq/L**	**LL**	133-144
TOTAL PROTEIN	7 g/dl		6.4-8.3
ALBUMIN	**23 g/dl**	**H**	3.5-5.2
CALCIUM TOTAL	**23 mg/dl**	**HH**	9.0-11.0
CREATININE	.5 mg/dl		0.6-1.3

Ordered by: **Allscripts, Orthopedist** Collected/Examined: **09Dec2012 07:27PM**
Verified by: **Allscripts, Orthopedist 04Jan2013 06:06PM**
Result Communication: Call patient with results;
Stage: **Final** Resulted: **09Dec2012 07:55PM** Last Updated: **04Jan2013 06:06PM** Accession: **46177174**

Order Stored Procedures

- **ExtractEncounter_CMS**
  - Provides information about encounter
- **ExtractPatient_CMS**
  - Information saved in the works database from Reg/Sched Interface
- **ExtractPerson_CMS**
  - Information saved in the works database from Reg/Sched Interface
- **ExtractOrderItem_CMS**
  - Information saved in the works database when the order is placed
- **ExtractInsurance**
  - Provides insurance information
- **ExtractOrderAdditionalInfomation**
  - Contains AOE question data


ConnectR
Superset Source
System
ConnectR
Target System
Process
Target Application
ODBC Stored Procedure
ODBC
ODBC
TouchWorks
Event_Table
ConnectR
Message Bucket

Result Stored Procedures

- **FileResult_CMS**
  - Files data from ORU to works database
- **Important Parameters that need to be in the ORU message**
  - MRN
  - Tworder Number/Req number
  - Ordering Provider Code
  - Orderable/Resultable Codes
  - RPL

Important Order Dictionaries

- **Order_Priority_DE**
  - Stat, ASAP, Routine
- **Order_Status_DE**
  - Active, Complete, EIE, Discontinued, Cancelled, Hold For, In Progress
- **Specimen_Type_DE**
  - Fluid, Nail, Saliva, Blood, Biopsy, Tissue, Urine
- **Race_DE**
  - Unknown, Hispanic, Black, Asian, White
- **Primary_Language_DE**
  - Spanish, English, German
- **QO_Classification_DE**
  - Orderable item table
- **OrderItem_identifier**
  - Order synching to master dictionary

Important Result Dictionaries

- **Where_Peformed_DE**
  - Location where the test was performed
- **Encounter_Type_DE**
  - Inpatient, Lab, Chart Update, Result Review
- **Unit_Code_DE**
  - kg, liters, mL
- **Req_Perf_Location_DE**
  - Dictionary containing RPLs
- **Provider**
  - Dictionary containing provider information
- **QO_DE**
  - Resultable item table
- **QO_Class_QO**
  - Orderable/Resultable synching table

Common Dictionary Forms

- **Entrycode-C**
- **Entrymnemonic-M**
- **ID-I**
- **NPI-P**

Common T-Tables

- **Race_DE Table**
- **Ethnicity_DE Table**
- **Sex_DE Table**
- **Site to Lab Account Number**
  - Site ID and RPL translate to vendor account number
- **Provider Codes Table**
- **Insurance Code Table**
- **Provider tasking Table**

Tasking Logic

- **Fileresult parameter 25-Ack required Task Flag**
  - Y creates a verify task for the ordering provider
- **Fileresult parameter 98-routing list**
  - Review tasks to providers or clinical task teams (CC's)
  - U:2034|T:23534| (format)

Patient Matching

- **Fileresult parameter 135- Match Logic**
- **Standard Match Logic**
  - Test #1: Name, MRN, DOB and Org
  - Test #2: Name, MRN, SSN and Org
  - Test #3: Name, DOB, SSN
  - Test #4: Name, DOB, Insurance / PBM Match
- **11 other Matching Logic options**
- **Pipe delimited list of options ex: 1|5|7**

Ways to Enhance Order Result Interface

- **Imagelink**
  - View PDF's and images from chart
- **Inbound Orders Interface**
  - Change order status after specimen has been collected
- **Dictionary Interface**
  - Automatically add unit codes
  - Automatically add provider codes
  - Automatically add where performed locations
  - Automatically add/synch orderables/resultables
- **Pros and Cons of Dictionary Interface**
  - Saves time, do not have to manually enter codes
  - Cannot monitor what gets added to database

ConnectR Errors

- **Application Errors**
  - Errors that are specific to Allscripts
    - Stored Procedure Errors
    - Message Definition Errors
    - Dictionary Errors
    - Patient Matching Errors
- **Syntax Errors**
  - Errors that are not specific to Allscripts
    - SQL errors
    - ODBC errors
    - Data type errors varchar vs int
    - Script errors (syntax errors in vbscript)

Common Interface Errors

- **-100-Patient Matching Error use bridge**
- **-145-Orderable/Resultable Error, check dictionary**
- **-176-Ordering Provider is not valid, add provider code to provider dictionary**
- **-606-More than one result activity header per order**
  - Lab is sending different accession numbers with the same requisition number
- **Script Error**
  - Check ODBC Connections
- **Error Resolving Tip (Dictionary Errors)**
  - Run the following query: Select * from dictionary where Number=# last four digits of the error code you are seeing

Galen Resources for Order-Result Interfaces

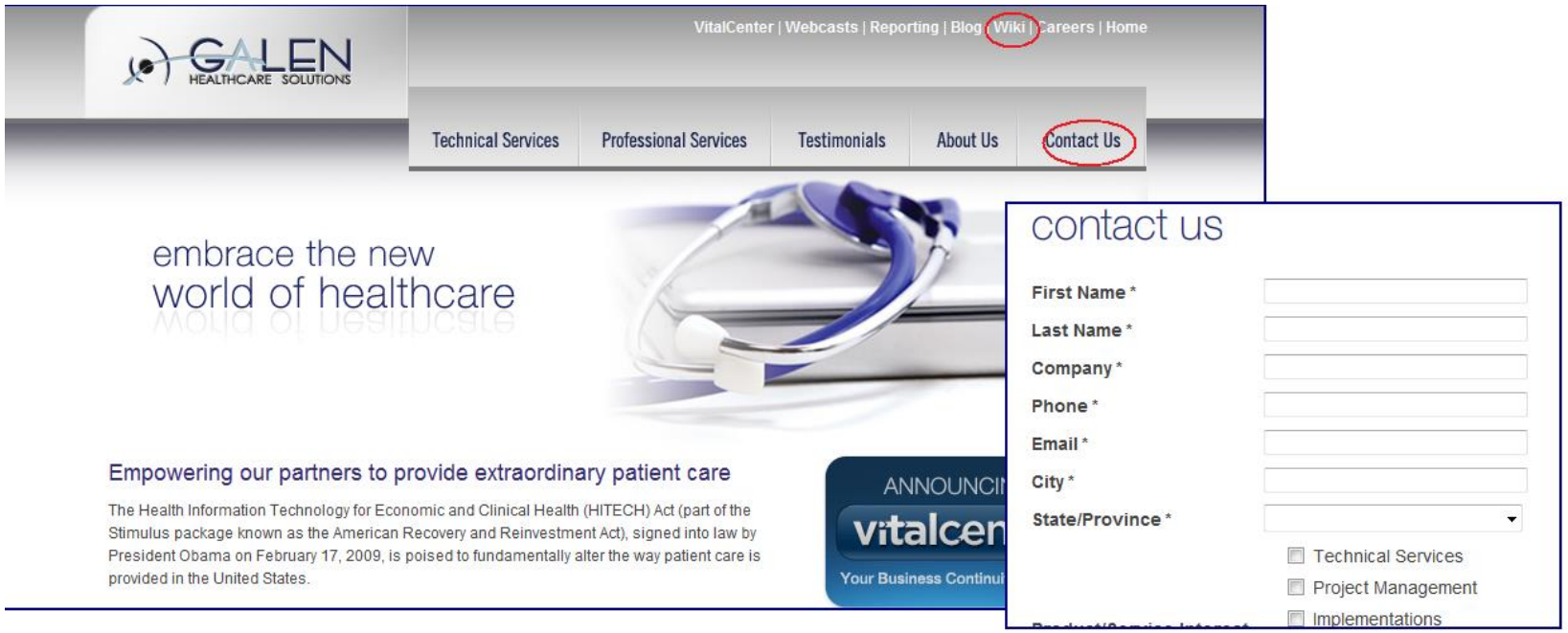
- **Wiki Articles**
  - Patient Matching
  - Tasking Logic
  - Interface Errors
  - Result Stage and Tasking
  - Order Matching
  - ConnectR Superset Source
  - Dictionary Synchronization
- **Webcasts**
  - Imagelink
- **Galen Allscripts Developer Forum**

http://interfaces.galenhealthcare.com/

Thank you for joining us today, for additional assistance….

You can contact us through our website at

www.galenhealthcare.com



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