

**MEDITECH**

# Surveillance Collaborative

July 31, 2024



# Key Points

- Surveillance Enhancement: Create a way to Add Cumulative Number query responses for the Fact Dict Lookback period
- Microbiology Procedure Prompt integration with EHR
- Roadmap: Resuscitation Status Surveillance Data Field
- Signature and Valley Surveillance Alert Messages
- Physician Champion: Helps identify key areas where quality meets surveillance
- Surveillance in the Web

# MEDITECH

## VISION

Advance digital health record technology so every patient and their providers can access their health information and participate in their care. We believe every healthcare organization can better serve its community with open access to electronic health records, clinical knowledge, and data.

## MISSION

Enable global healthcare organizations to deliver safe, efficient, and impactful care to the communities they serve through our comprehensive software, services, and technology

## VALUES

Integrity  
Investing in the future:  
people, process, and technology  
Sustainability and focus  
Fiscal responsibility  
Ensuring a positive long-term  
impact on customers, staff,  
and the industry

**Our solutions drive organizations to improve efficiency; guide clinical, financial, and operational decisions; and connect clinicians across a dynamic healthcare ecosystem in support of holistic, person-centered care.**

# Surveillance Collaboration

## Our Mission

To incorporate **Surveillance** throughout healthcare organizations. To **enhance safety practices and access to information**. The Surveillance Collaborative Forum will serve as subject matter experts and provide guidance, recommendations, and conceptualization on Surveillance Best Practices through the use of MEDITECH software and provide feedback for the future design of the Surveillance application.



## Our MEDITECH Members

- Daniel Seltzer, Quality & Toolkits
- Gregory Ayers, HCA Surveillance
- Brett Muirhead, MaaS Implementation
- Jennifer Ford, Strategy Division
- Jonathan Hallman, Client Services
- Jonathon Junker, Client Services
- Ilana Gutierrez, Implementation
- Israel Perez, EMT Client Services
- Scott Gooch, Development
- Spencer Dolan, Development
- Larissa DeGregorio, Client Services

# Our Client Members



- Signature Healthcare, MA
  - Nicholas Szymanski
  - Christopher Mitchell
  - Dee Dee Johnson
  - Jeff Gray
- Holyoke Medical Center, MA
  - Avadhoot Gokhale
  - Christi Giroux
  - Brian Stromwall
  - Debbie Lajoie
  - Debra Marum
  - Tara Garstka
- Citizens Memorial
  - Sherry Montileone
  - Cherilyn Michaelis
  - Michelle Williams
  - Katrina Mawhiney
  - Chad Cahow
- Frederick Health, MD
  - Jackie Rice
  - Lauren Small
  - Debbie Remsberg
  - Lisa Ledwell
- Golden Valley Memorial Healthcare, MO
  - Hayli E. Wade
  - Kaytie Stockdall
  - Kim Bybee
  - Nancy Engeman
- Valley Hospital, NJ
  - Michael Burke
  - Christopher Neumann
- Heywood Hospital, MA
  - Jaime Vallejos
- Royal Victoria Regional Health Centre
  - Sharon Avey, RN, MN
  - Shelli Hickey
  - Christianna Howes
- Logan Health, MT
  - Pebbles Bates
- Thibodaux Regional Health, LA
  - Ashley Becnel
  - Michelle Toups
- HCA, TN
  - Stefanie Fine
  - Kayla Johnson
  - Ricardo Gonzalez
- Unity Health
  - Ann Russell
- Broadlawns Medical Center
  - Jeanne Dobrzynski

A group of people in a meeting, with a semi-transparent grey bar across the middle containing the word 'Development'. The image is overlaid with a green tint. The word 'Development' is written in white, bold, sans-serif font, centered on the grey bar. The background shows several people looking at a laptop screen in a collaborative setting.

**Development**

# Adding up with MEDITECH Surveillance



**E** Rules Engine Fact Dictionary (DEV.CMS) More Help MJ User Close

SV.BLOODLOSS - Estimated Blood Loss Cumulative 500ml over 6 hours

Main Fact Embedded In

* Item	MIS Cust Def Query
* Query Record	Account Query
* Query	Output, Estimated Blood Loss Amount
* Operator	Equals
Modifier	
Sub Modifier	

Look Back 6H

Cumulative Yes

Value 500

View

New

Edit

Report

Cancel Save

CM-23419



Surveillance: Create a way to Add Cumulative Number query responses for the Fact Dict Lookback period



# Example | Blood Loss

Blood Loss fact: Estimated Blood Loss Cumulative 500ml over 6 hours

03:20 AM

05:13 AM

06:26 AM

07:13 a.m.

09:10 AM

Blood Loss  
Document 150 ml

Blood Loss  
Document 200 ml

Blood Loss  
Document 50 ml

Blood Loss  
Document 25 ml

Blood Loss  
Document 80 ml

Surveillance will “Look Back” 6 hours and add up the documentation to 500 ml over

# Adding up with MEDITECH Surveillance



Return To Home Chart Document Orders Discharge Sign Workload Menu More Help User Close

**Tess, Page** 38 F ADM IN 1WEST 1WEST-100-5 Resus Status Not Ordered No Hx Avail 19ft 8.22in 2lb 3.274oz BSA:0.23m<sup>2</sup> BMI:0.0kg/m<sup>2</sup> Allergy/Adv: No Known Drug Allergies AC9 MR8 D00000009

Show Text Earlier Later Back

Item Detail

Detail History Flowsheet AssocData Order

	Fri Jun 14 3:20 am by MDJ	Fri Jun 14 5:13 am by MDJ	Fri Jun 14 6:26 am by MDJ	Fri Jun 14 7:13 am by MDJ	Fri Jun 14 9:10 am by MDJ
Intake and Output					
Output					
Output, Estimated Blood Loss Amount (ml)	150	200	50	25	80

CM-23419



Surveillance: Create a way to Add Cumulative Number query responses for the Fact Dict Lookback period

# Microbiology Result

CM-23686

Add Data Item for  
EMR MIC Results for  
Surveillance Facts



In progress: Road map  
2024

Name	Mnemonic
EMR MIC ProcPromptAbFlag	EMRACCTMIC.MICROPROC PROMPTABNFLAG
EMR MIC ProcPromptName	EMRACCTMIC.MICROPROC PROMPTNAME
EMR MIC ProcPromptResTxt	EMRACCTMIC.MICROPROC PROMPTRESULTTEXT
EMR MIC ProcPromptUnits	EMRACCTMIC.MICROPROC PROMPTUNITS

# Microbiology Result

The screenshot displays the Epic CHART-41660 interface for patient Goldberg, Freddy X. The top navigation bar includes tabs for Diagnostics, Provider Notes, Nurse/Allied Health, and Medications. The Diagnostics section is active, showing a list of activities. A specific activity for a Micro Urine Specimen is highlighted, with a procedure result showing the following findings:

- Acinetobacter baumannii
- Achromobacter species
- CDIFF
- Clostridium difficile

The right-hand panel provides patient details (109, M, 04/03/1915, MRN# MR00026284) and lists allergies (walnut, chocolate flavor) and medications (loratadine-pseudoephedrine 10-240 mg ER, 1 tab PO DAILY).

Epic:  
CHART-41660  
Microbiology  
Procedure Prompt  
integration

# Microbiology Result

The screenshot displays the Epic CHART-41660 Microbiology Procedure Prompt integration. The interface shows a patient's microbiology results for a urine culture. The patient is identified as Goldberg, Freddy X, 109 M, 04/03/1915, with an allergy/advise of walnut and chocolate flavor. The results are as follows:

Organism	Colony Count	Other Details
Organism 1	1,000 CFU/ml	Called To: JGOLDBERG, Read Back: YES, CALLED BY: MT, Date Called: 02/24/23, Time Called: 1728, Beta Lactamase: POSITIVE
Organism 2	10,000 - 20,000 CFU/ml	Achromobacter species
Organism 3	10,000 - 20,000 CFU/ml	CDiff
Organism 4	10,000 - 20,000 CFU/ml	Clostridium difficile

The results also indicate that mixed gram negative rods were isolated. A note at the bottom states: "Organism growth was seen in the culture. This is a paragraph prompt. Can it be found by Surveillance Rules Engine? (JG) Rifampin Should Not Be Used Alone For".

Epic:  
CHART-41660  
Microbiology  
Procedure Prompt  
integration



# Resuscitation Status Roadmap 2025

IDEA-26432: Add Data Item in Rules Engine Fact dictionary to reference Resuscitation Status field in OM



A group of people in a meeting, overlaid with a green tint and a semi-transparent grey banner containing the text 'Surveillance Messaging'.

# Surveillance Messaging

# Signature Healthcare



Background Jobs Messages

Facility ▼  
Signature Healthcare Brockton

Event ▼  
Qualify for Profile (Auto)  
Qualify for Profile (Manual)  
Remove from Profile (Auto)  
Remove from Profile (Manual)

Surveillance Profile ▼  
Active Orders: ACS Consults  
Airborne Precautions  
CDIFF - orders placed against Quality criteria  
Contact Plus Precautions

Message ▼  
CDiff Surveillance Message

Disclaimer: Email messages may contain privileged and confidential information, including patient information protected by federal and state privacy laws. Please refer to the policies of this organization to determine what information can be included in an email message.

Recipient Group	Infectious Disease
Send E-mail	Yes
E-mail Subject	[encrypt] Check CDIFF order

## C Diff Alert Messages

### Surveillance Parameters Messages



Automatic Message will send to Infectious Disease



# Signature Healthcare

## Email Example



-----Original Message-----

From: [SystemMsgDoNotReply@Signature-Healthcare.org](mailto:SystemMsgDoNotReply@Signature-Healthcare.org) [<mailto:SystemMsgDoNotReply@Signature-Healthcare.org>]

Sent: Sunday, March 21, 2021 8:34 PM

To: Mitchell, Christopher; Greenberg, Robert M.D.; Arshad MD, Saarah; Ryan, Stacey J; Ferreira, Vincent

Subject: [encrypt] Check CDIFF order

An Order for CDiff has been placed that does not meet typical Quality criteria.  
Please review:

Pt Name Redacted

Pt Acct # Redacted

REG ER

Emergency Dept Observation

Attending Provider:

Reg Date/Time: 03/21/21 14:41

# Surveillance Alert Messages

Return To Message/Task Parameters (DEV.CMS) More Help User Close

Main | Grouping Labels | List Display Last Edit: 05/31/2023 5:03 pm

Desktop Message/Task Lists

- \* Separate Messages and Tasks  Yes  No
- \* Top List Messages
- \* Allow Change in Access Dict  Yes  No

Maintenance Settings

- \* Remove from Old Folder Delay 30
- \* Remove from Sent Folder Delay 30

Email Settings

Allow Message Text for Email Regarding

Account

Incident Report

For Message Task Type

Surveillance Events

View Edit Report

History Cancel Save



## Message/Task Parameters



Email including details from the messages



# Valley Hospital

- Messages email to Informatica 
- Informatica reads the message looking for keywords (HL7)
- Vocera  communicates the message to the nurses care team system phones

A group of people in a meeting, overlaid with a green tint and a semi-transparent grey banner containing the text 'Surveillance for Providers'.

# Surveillance for Providers





# Physician Champion

- Creates a collaborative environment between IT and Physicians
- Insight to Physician unique workflows
- Communication
- Facilitate adoption
- Helps identify key areas where quality meets surveillance.
- “Boots on the ground” physician leaders



# Surveillance Alert Options

Alert Type	Data Item	Display Singular	Display Multiple	Considerations
Alerts List	Surveillance Profile Elapsed or Qualified Date/Time	C-SSRS	High Fall Risk, CAUTI, ABX: 48+ ...	These should be reserved for the most urgent details; Define a concise label for each alert.
Alerts Icon	Surveillance Profile Elapsed or Qualified Date/Time	!	!	Clinicians must clearly understand what type of alert the icon represents, because one icon represents all qualifying Profiles associated to it.
Indicator	Indicator Scheme Text or Icon Indicators	U Cath SEPSIS !	High Fall Risk SEPSIS U Cath >2D	For icons, clinicians must clearly understand what types of alerts coincide with each icon.
Surveillance Profile Elapsed Date/Time	Surveillance Profile Elapsed Date/Time	Urinary Catheter > 2 D 5H 47M	Urinary Catheter > 2 Days 4H 7M ...	Passive indicators for informative details that may still require action or physician attention, but are not urgent.
Surveillance Profile Qualify Date/Time	Surveillance Profile Qualify Date/Time	Urinary Catheter > 2 D 10/24/19 10:21	Urinary Catheter > 2 Days 10/24/19 10:21 ...	

Name	ED Area/Station	ED Chief Complaint	Vital Signs
Age BirthSex ED Status ED Priority	ED Elapsed Ti... Repeat Visit C... Alerts List	Documents, ED Status ED Signup Button Alerts List	Orders/Results
<b>Ferlado, Julia</b>  69 F In Room Urgent	<b>ED Exam Rooms - Room 3</b> 3h 54m Draft	<b>Back Pain/Injury</b> Andres Rivera <span style="border: 1px solid red; padding: 2px;">Substance Misuse Risk</span>	BP Pulse <b>94</b> Resp <b>20</b> Temp <b>99.2 F</b> O2 Sat <b>96%</b> Mar UTOX
<b>Munson, Etta</b> 📁  83 F In Room Urgent	<b>ED Exam Rooms - Room 6</b> 2h 2m Pending	<b>Shortness of Breath/Dyspnea</b> Laurence Spector Larissa <span style="border: 1px solid red; padding: 2px;">Possible Sepsis</span>	BP <b>88/56</b> Pulse <b>102</b> Resp <b>22</b> Temp <b>102.5 F</b> O2 Sat <b>94%</b> Mar Bilirubin ... CBC w/diff PTT Blood Cult... BMP lactate Prothromb
<b>Grant, Adam</b> 📁  64 M In Room Less Urgent	2h 33m Surveillance Possible Sepsis: <a href="#">2H 24M</a>	<b>ry, Upper</b> Rachel Kelly	BP <b>130/88</b> Pulse <b>75</b> Resp <b>20</b> Temp <b>99.1 F</b> O2 Sat <b>97%</b> Mar Saline loc... BMP POC/NUR
<b>Smith, Elena</b>  85 F Admitted Patient	<b>ED Exam Rooms - Room 2</b> 14h 42m No Document	<b>Chest Pain</b> Katherine Grant	BP Pulse Resp Temp O2 Sat <b>96% (2L)</b> Mar

## Surveillance Profile Criteria

Munson,Etta 83 F 02/28/1941 Allergy/Adv: No Known Allergies

Close

Profile Qualified Instance

Possible Sepsis 1   
04/03/24 17:10

**Alert: Possible Sepsis**

This patient meets criteria for possible sepsis. Alert care team immediately.

**Qualifying Criteria**

Age Current	83
Reg Status	REG
Reg Type Category	ED
Sepsis Infection Criteria Present	Suspected New Infection
Sepsis Screen	Possible Sepsis Risk
Pulse Rate	96
Respiratory Rate	24
Temperature	102.5 F

**Take Action for Possible Sepsis**

ORD SET: ED Sepsis 



Add To Profile Remove From Profile Edit Reevaluate Time



## Surveillance Profile Criteria

Munson,Etta 83 F 02/28/1941 Allergy/Adv: No Known Allergies

Close

Profile Qualified	Instance																																							
Possible Sepsis 04/03/24 17:10	1	<div style="background-color: #f0f0f0; padding: 5px;"> <p>▼ <b>Take Action for Possible Sepsis</b></p> <table border="1"> <tr><td>ORD SET: ED Sepsis</td><td></td></tr> <tr><td>PROB: Sepsis</td><td></td></tr> <tr><td>PROB: Severe Sepsis</td><td></td></tr> <tr><td>PROB: Septic Shock</td><td></td></tr> <tr><td>DOC: Sepsis Event Note</td><td></td></tr> </table> </div> <div style="background-color: #f0f0f0; padding: 5px; margin-top: 5px;"> <p>▼ <b>Associated Data</b></p> <table border="1"> <thead> <tr> <th>Order</th> <th>Result</th> <th>Date</th> <th>Specimen</th> </tr> </thead> <tbody> <tr> <td>Sepsis Screen</td> <td>Possible Sepsis Risk</td> <td>04/03/24 16:30</td> <td></td> </tr> <tr> <td>Action Taken by Nursing</td> <td>Physician Notified</td> <td>04/03/24 16:30</td> <td></td> </tr> <tr> <td>Name of Provider Notified</td> <td>Dr. Cameron</td> <td>04/03/24 16:30</td> <td></td> </tr> <tr> <td>Is the patient pregnant?</td> <td>N</td> <td>04/03/24 16:30</td> <td></td> </tr> <tr> <td>Infection Criteria Present</td> <td>Suspected New Infection</td> <td>04/03/24 16:30</td> <td></td> </tr> <tr> <td>Temperature</td> <td><b>102.5 F</b></td> <td>05/28/24 16:02</td> <td></td> </tr> </tbody> </table> </div>	ORD SET: ED Sepsis		PROB: Sepsis		PROB: Severe Sepsis		PROB: Septic Shock		DOC: Sepsis Event Note		Order	Result	Date	Specimen	Sepsis Screen	Possible Sepsis Risk	04/03/24 16:30		Action Taken by Nursing	Physician Notified	04/03/24 16:30		Name of Provider Notified	Dr. Cameron	04/03/24 16:30		Is the patient pregnant?	N	04/03/24 16:30		Infection Criteria Present	Suspected New Infection	04/03/24 16:30		Temperature	<b>102.5 F</b>	05/28/24 16:02	
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		<span>Add To Profile</span> <span>Remove From Profile</span> <span>Edit Reevaluate Time</span>																																						

# Color Coding Alerts

Options Include: Aquamarine, Blue, Cyan, Green, Magenta, Orange, Sapphire, Tan, Violet and Wheat



MEDITECH Example:

**Crest, April** 147 days **!** DNR Comfort Care - Arr...  
**61 F** UCATH>2, Fall 48+Hrs., Abx-C.Diff, Abx-... Pride,Ian  
**HCU.SV/1807-1** Consult COVID, +C.Diff Pride,Ian  
SV0000014848 Inpatient Pride,Ian

Logan Health Example:

**Rounds Patients 3** **Logan Health Medica...**  
**ambtest,luci** **42 F** **K.135-0**  
**K.OB** 430 Resus Sta... **Septic Shock**  
K.135-0 Lavin,J... ADM IN **Cath >2D**  
V0000000... Lavin,Joh... **Malnutrition**

# Dictionary Setup - Color Coding

Return To **E** Patient List Format Dictionary (SC.EXP22SAND) More Help User Close

DS.W.PC.RN - RN Web with Surveillance Last Edit: 07/23/24 10:51

Main Columns Details

Display Patient ID Banner?

\* Patient ID Banner Field

Name and Preferred First Name	Label	Sortable	Actionable
Name	Name	Yes	Yes
Age BirthSex	Age/Birth Sex		No
Legal Sex	Legal Sex		No

Display Open Chart Indicator

\* Column

<Multiple>	Label	Sortable	Rel Width	Style	Actionable
Orders Flag	Acknowledge	Yes			Yes
Next Int	Next Intervention	Yes			Yes
Orders Renewable Non-Series by Proc, Times Only	Restraint Time Left				Yes
Orders Renewable Non-Series by Proc					Yes
<Multiple>					
Next MAR - Display	Next Med	Yes			Yes
New Results					Yes

\* Multiple Field

Alerts List	Label	Sortable	Style	Actionable
Alerts List	Surveillance			Yes
Alerts List				Yes
Alerts List				Yes

Override Background Color

Modifier

Surveillance Profile Elapsed Date/Time	Value Display Text
High Fall Risk [SV.FALLRISK]	Fall Risk
Urinary Catheter > 2 Days [SV.UACTH >2D]	U Cath > 2D
On Antibiotics for 48+ Hours [SV.ABX.48HOUR...]	ABX: 48H+

History Clear Rel Widths Cancel Save

## Alert List



Elapsed Date/Time  
Override Background Color  
Profiles



**Surveillance Collaboration  
Communication**



## *What's App CPAC Chat Group*



**Marsha Fearing, MD, MPH, MMSc.**  
*Physician Consultant, Region 3*

# Need for Internal Peer-to-Peer Group Discussion Group:



## Key Points of Interest:



- **Security and Encryption: End to End (Comfortable sharing screen shots)**

[WhatsApp-Security-Whitepaper.pdf](#)

- **No additional fees to call US to Canada**
- **Desktop vs. Mobile Phone usage**
- **Easy to Moderate; up to 256 members**

13:32



13:20



# CPAC Chat Group

Allan, Amyeen, Andrea, Dere...



# CPAC Chat Group

Allan, Amyeen, Andrea, Dere...



16:20

Allan Lee, MD

Dr. Tasleem Nimjee

Allan Lee, MD

Different topic. My GI guys are asking to

# Does Not Replace Client Services!!

...

... them, tell your team to talk to ours. They collaborate very well. I can't remember offhand what are set up is, but I believe we have third party software like you described.

21:34



Allan Lee, MD

@Dr. Tasleem Nimjee I was just asked to look at AIMS as well

04:00

Retn

Allan Lee

Rounds Patients 836

Georgetown Hospital

Roundng Sign Out

Oakville Hospitalists

ADH IN			
10/11/2021			
<b>Augie, Baily Coral</b>	6m 23d M	15-801-1	
MD0000489	Code Status Not Ordered No Hx Avail	Sadera,Abhimanyu Jagr S.	
11/08/2022		Sadera,Abhimanyu Jagr S.	
ADH IN			
11/08/2022			
<b>Testing, josewt3</b>	45 M	2-S-235-1	please follow up on ...
070000294	Code Status Not Ordered No Hx Avail	Doctor Inpatient.ZZ	
02/04/1977		Doctor Inpatient.ZZ	
ADH IN			
14/12/2022			
<b>Test, Logan ZSP</b>	38 M	2-S-242-1	
070000401	Code Status Not Ordered No Hx Avail	Lee, Allan	
02/02/1983		Lee, Allan	
ADH IN			
18/01/2023			
<b>Demo, Sonia</b>	45 F	2-S-246-1	follow up with labs tomorrow, book family meeting next week.
0700003651	No CPR - Active Treatment	Doctor Inpatient.ZZ	
05/04/1977		Doctor Inpatient.ZZ	
ADH IN	Hearing and Vision Assistance		
24/08/2022			
<b>Best, Isabella</b>	18 F	2-S-323-1	
0700003694	FULL CPR	Lee, Allan	
01/09/2009		Lee, Allan	
ADH IN			
31/08/2022			
<b>Test, Marcy ICU</b>	53 F	2-S-325-1	
0700004218	Code Status Not Ordered No Hx Avail	Doctor Inpatient.ZZ	
08/02/1970		Doctor Inpatient.ZZ	
ADH IN			
10/02/2023			
<b>Test, IFH</b>	61 F	2-S-328-1	

TORONTO



## Topic: Successful Builds



What has been the most effective surveillance project your organization has done & why?



Holyoke  
Medical Center

**Chris Giroux**

Director of IS/IT  
Holyoke Medical Center

**Thank You!**



# Resources

Customer Showcase Recordings and Resources:

<https://customer.meditech.com/en/d/prwqm/pages/qmebfesurvshowcase.htm>

Surveillance Collaborative Page:

[https://home.meditech.com/en/d/customercollaboration/pages/surveillanc  
ecollaborative.htm](https://home.meditech.com/en/d/customercollaboration/pages/surveillanc<br/>ecollaborative.htm)

Style Guide

[https://customer.meditech.com/en/d/prwqm/otherfiles/qrmeiassurvalertsty  
leconsiderations.pdf](https://customer.meditech.com/en/d/prwqm/otherfiles/qrmeiassurvalertsty<br/>leconsiderations.pdf)

Collaborative Solutions

[https://home.meditech.com/en/d/newmeditech/pages/collaborativesolutio  
ns.htm](https://home.meditech.com/en/d/newmeditech/pages/collaborativesolutio<br/>ns.htm)