Implementing Secure Clinical Communication Technology - Lived Experience as an Outcome

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Conflict of Interest Disclosure

Carol George and Lisa Gulker have no real or apparent conflicts of interest to disclose.
Session Objectives

At the conclusion of this presentation, the participant will be able to:

• Discuss approaches to implementation of secure clinical communication technology and the creation of evidence in the form of lessons learned.
• Describe the diverse group of stakeholders to engage when implementing secure clinical communication technology.
• List several policy and practice decisions to be made before beginning a secure clinical communication project.
• Propose process and outcome metrics that may reflect the success of a secure clinical communication implementation.
Emoji Quiz
Emoji Quiz – Item #1
Emoji Quiz – Item #2
Emoji Quiz – Item #3
New 11.0 iOS Emojis
A Few Emoji Facts

• Emoji use exploded in 2012, when iOS 6.0 was released.
• 'Emoji' was added as a word to Oxford Dictionaries in 2013.
• Emoji support for Twitter's web version was only introduced in April of 2014.
• Most popular emoji's: face with tears of joy, red heart, face with heart eyes, and kissing face
• We celebrated the fifth annual World Emoji Day on July 17, 2017.
Secure Clinical Communication – Why it Matters

• Communication in healthcare can be fragmented and asynchronous.

• Clinical workforce teams expect to take advantage of mobile devices while at work – just like they do in their consumer/personal lives.

• The healthcare cybersecurity and privacy concerns are real – and pose risk for providers and patients both.

• Acute care and ambulatory settings often cannot leverage the same networks and devices for communication as consumers do.
• KLAS Research (2016) distinguishes between 3 different types of vendor applications:
  − Standard
  − Platform
  − Specialized

• Selection of an application should cover the basics first:
  − Compliance
  − Communication

• After these two imperatives are met, clinical integration quickly becomes a priority (“want”).

• Vendor selection is complex, and conducting 2-3 pilots with various vendors can be a valuable strategy for decision-making.

https://klasresearch.com/market-segment/secure-communications/285
Pre-Implementation Decision Checklist

- Who will use the secure text messaging application?
- Which device(s) will be available for each of the user groups?
- What networks will be used to deploy the application, as well as transmit messages?
- For each of the device types, who will pay for the devices and any cellular/data plans?
- Does your institution have an existing policy regarding BYOD, texting PHI, and the use of technology during work time?
- Where will you conduct your pilot?
  - Standard
  - Non-standard
Establish an Executive Steering Committee

• Who?
  • Chief Information Officer
  • Chief Technology Officer
  • IT Security Leader
  • Production Support Leader
  • Project Management Leader
  • Clinical Operations Leader
  • Clinical Informatics Leader
  • Compliance and Privacy Leaders

• Why?
  • Help navigate priorities and ensure verticals work together
  • Commitment and authority to allocate resources
  • Understand challenges
  • Approve changes to schedule
  • Identify and remove barriers
Healthcare enterprise secure messaging has many stakeholders and requires a robust Communication Plan.

**IT/Desktop/Field Services:**
- App Deployment Model
- Voice Communications
- Hardware Provisioning

**Clinical Operations:**
- Infection Control
- Point of Care Workflow
- Chain of Command

**Legal:**
- Records and Retention
- Physician BYOD Model

**Compliance:**
- Privacy
- Audits
- Picture transmission

**IT Security:**
- Application Review
- Network Authentication
- Provisioning Model

**IT/Desktop/Field Services:**
- App Deployment Model
- Voice Communications
- Hardware Provisioning

**Executive Sponsorship:**
- Organizational Change Management

**Infection Control**

**Point of Care Workflow**

**Chain of Command**

**Record and Retention**

**Physician BYOD Model**

**Privacy**

**Audits**

**Picture Transmission**

**Organizational Change Management**

**Continuous Delivery Model**
Secure Communication Policy

• Policy content and approval requires expertise and participation from the same multidisciplinary group represented on the steering committee and implementation team.

• Topics important to address:
  – Users
  – Devices – compliance with BYOD and technology use policies
  – Retention and auditing of messages
  – Image transmission
  – Proper use of messaging applications
    ▪ Patient care orders
    ▪ Critical results
    ▪ Work-related business use and on-duty time
  – Documenting secure messaging conversations in the medical record
  – Infection control
Secure Messaging Scope Overview

• Text Messaging
  • Secure HIPAA compliant instant messaging communication
    • Bring Your Own Device (BYOD)
      • Credentialed Providers
      • Operations Leaders
  Desktop application
    • Clinical and Support Staff

• Application Testing
  • Site ISD (Information Services Director) and CI (Clinical Informatics Leader)

• Education and Training development
  • All relevant training collateral will be distributed to the site after Kick Off
  • Site is solely responsible for training all end users
The Impact of Using Desktop Secure Messaging

• The use of a multi-user workstation adds complexity to the technical needs for implementation.
  • Deployment model
  • Single Sign On integration
  • Provisioning

• Desktop secure messaging is more like Instant Messaging – which changes the way end users are educated in the use of the app.
  • Approach should balance the benefits of having users sign in and appear “available” in the app with the possibility that not all users will want to IM every time they use a workstation
Implementation Considerations: The Project Team

Local Team (weekly)
- Clinical Informatics
- Information Systems
- Executive Sponsor

Organization Team (daily)
- Product Owner
- Project Manager
- Technical Project Manager
- Desktop Specialist

- Leadership Stakeholders (weekly and PRN)
  - IT Security and Privacy Officer
  - IT Desktop Leader
  - Production Support Leader
  - Application Access Leader
  - Clinical Informatics Leader
Technical and Security Configuration Options

• Browser Options
  – Chrome vs. IE
    ▪ IE needed plug-in -> increase security risks
    ▪ IE does not support HTML 5 -> no notifications
  – Citrix vs. SSO Chrome launch
    – Citrix Costs more due to increase concurrent users licenses needed
    – Citrix was timing out without user knowing it
• Security Configurations
  – How long before auto log-off?
  – How long to save messages?

BYOD Hospital Personnel: Hospital Owned Phones and A-Team Only
Providers: Do Not Auto-launch Desktop

Caradigm SSO
Chrome
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  - Application Access Leader
  - Clinical Informatics Leader
Implementation Considerations

• Local Team Responsibilities
  • Identify User groups
  • Communication, training, go-Live support plan
  • Testing 3 different computer types
  • Single Sign On (SSO), eDesktop and network desktops
  • Production validation
  • Go Live Support
  • Provisioning after transition to support

• Organization Team Responsibilities
  • Coordinates all kick off, weekly and bridge line support calls
  • Develops and shares training, communication documents
  • Tracks milestones
  • Troubleshoots technical Issues
  • Onboarding bulk provisioning
  • Creates all support documents, FAQ’s, call center routing, provisioning and support tools
Secure Messaging Education and Communication Collateral

• Communication Campaign
  • Leader Talking Points
  • Fact Sheet-Staff and Providers
  • Messaging Flyer-Staff and Providers
  • PowerPoint Presentation

• Training Collateral
  • Training Guide
  • Trifold
  • BYOD Access Code and Download Information
  • eID Process for Secure Messaging

• Data Collection Worksheet (DCW)

• Texting Policy and Procedure

• Pre-Conversion Readiness Assessment (PCRA)
Preparing for Users

- Desktop
  - Nursing-General, ED, Surgery, OB Perinatal
  - Supervisors
  - Respiratory Therapy
  - Pharmacy
  - HIM
  - Unit Clerks and Techs
  - Case Managers
  - Physicians
  - Mid-Level Providers

- Which Users for BYOD?
  - Physicians
  - Residents
  - Employees with company phones
  - Home Health
  - Shared phones
  - A-team
Communicating with Providers

• How will you communicate the project to your credentialed provider community?

• Suggested physician communication tactics:
  • Service Line Department Heads
  • Flyer Postings
  • Medical Executive Committee (MEC)
  • Blast Faxes
  • Emails
  • Newsletters
  • 1:1 Meetings
  • Medical Staff Office
  • Screen Savers
  • Physician Lounge Stalking
Technical Lessons Learned

• SSO will manage auto-launch, auto login, tap in and tap out
• We have a standard design for SSO profiles
• Our new script for auto-launch goes in “this” folder and it will work everywhere beautifully
• Hospitals have one .ini file called “this” that are used in a startup script
• Here are the instructions for installation attached in this email
• Our corporate IS support can remote into every hospital’s IS network
• eDesktops and WoWs – they all work the same
• Some PC web browsers use “save my login and password”
• All hospitals use the same SSO application
Adoption Metrics - Who is logging in and texting?

<table>
<thead>
<tr>
<th></th>
<th>400 Bed Acute Care Hospital</th>
<th>167 Bed Acute Care Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Logged In</td>
<td>Messages Sent</td>
</tr>
<tr>
<td>REGISTERED NURSE</td>
<td>506</td>
<td>140</td>
</tr>
<tr>
<td>PHARMACY, STAFF</td>
<td>108</td>
<td>93</td>
</tr>
<tr>
<td>MD</td>
<td>82</td>
<td>72</td>
</tr>
<tr>
<td>SECRETARY, UNIT</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>LABORATORY</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>HIM</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>CASE MANAGEMENT</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>REGISTERED DIETICIAN</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>RESPIRATORY</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>MONITOR TECH</td>
<td>8</td>
<td>0</td>
</tr>
</tbody>
</table>

Who is logging in and texting:

- **REGISTERED NURSE**: 506 times, 140 messages.
- **PHARMACY, STAFF**: 108 times, 93 messages.
- **MD**: 82 times, 72 messages.
- **SECRETARY, UNIT**: 21 times, 0 messages.
- **LABORATORY**: 18 times, 0 messages.
- **HIM**: 13 times, 14 messages.
- **CASE MANAGEMENT**: 12 times, 7 messages.
- **REGISTERED DIETICIAN**: 12 times, 4 messages.
- **RESPIRATORY**: 10 times, 1 message.
- **MONITOR TECH**: 8 times, 0 messages.
Adoption Metrics – What does success look like?

### Secure Messaging Stats - 2 weeks post Go Live

<table>
<thead>
<tr>
<th>Facilities</th>
<th>Unique Users</th>
<th># of Login's</th>
<th>Sent Messages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Desktop</td>
<td>Mobile</td>
<td>Total</td>
</tr>
<tr>
<td>Site 1</td>
<td>130</td>
<td>580</td>
<td>62</td>
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<tr>
<td>Site 2</td>
<td>118</td>
<td>74</td>
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<td>Site 3</td>
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<td>Site 12</td>
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<td>Totals</td>
<td>735</td>
<td>5157</td>
<td>1102</td>
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</tbody>
</table>

**Facilities:**
- Unique Users
- # of Login's: Desktop, Mobile, Total
- Sent Messages

**Graphs:**
- Unique User Count
- Messaging Volume

**Notes:**
- Secure Messaging Stats
- 2 weeks post Go Live
- # of Login's
- Sent Messages
Clinical Texting Communication – IMNSHO – is not like consumer texting

• It’s important to develop, teach, and then monitor a business etiquette for the use of texting in the healthcare setting.

• What are the expectations with respect to:
  – The content of messages?
  – The use of image transmission?
  – The length of messages?
  – When is it okay to be “Not Available” (user will not sign into the app)?
  – The indication of “presence” as guidance about when to text someone?
  – The use of abbreviations?
  – The use of emoji's?
  – The use of ALL CAPITALS?
Healthcare Texting Etiquette 101, 102, 103...

Mom

I got an A in Chem!

WTF, well done!

Mom, what do you think WTF means?

Well That's Fantastic

DON'T TYPE AT ME IN THAT TONE OF VOICE.
Healthcare Texting Etiquette Suggestions

- Introduce devices as part of the care team to patients, families, and colleagues
- Put devices away when appropriate
- Avoid abbreviations
- Avoid emoji’s/emoticons
- Watch your tone and use your manners
- Pay attention to grammar, spelling, etc.
- Check the recipients before hitting “Send”
- Include a “signature” or some way to identify yourself to the recipient
- Compose messages so they are brief, clear, specific
- Know the proper subject matter for texts – often a phone call or a face-to-face is best
- Respect boundaries of time and place
- Once is enough
- Sign off politely and professionally
User Presence and Message Delivery Status

• In the desktop model, RNs and other bedside staff will not always be “Available”.

• In the BYOD model, physicians and other providers will not always be “Available”.

• User groups should receive guidance on how to manage their app presence in the Directory in order to facilitate communication.

• User groups should use their Chain of Command and institution policies in order to address and escalate patient care needs.
User Feedback

• **Pilot site**
  - Improve training materials together
  - Test and improve process for provisioning large number of users
  - Define clear handoffs during planning and build phases that can scale
    - Desktop and BYOD User spreadsheet > access management team > bulk provisioning > notify hospital CI > notify providers > promotes installations on BYOD
  - Is there a BYOD password that expires for the first install?
    - Early access provided to IS and CI
    - Identify 3 testing PCs that meet criteria for testing > coordinate testing with desktop specialist + ISD + CI

• **Directory Design (yellow pages)**
  - Physicians users input into directory design
    - Search specialist so they can find each other
    - Less is more
  - CI users input into directory design
    - Adoption reports further narrowed departments to include in the directory
    - Less is more

• **Survey Monkey**

• **Adoption Report Meeting**
  - 3 weeks post go-live with last 14 days of data
  - Compare and learn from each other
  - Evolving best practices
  - Include vendor for enhancement feedback
Time for Questions and Discussion
Parting Emoji’s...Thank you!

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