Implementing Secure Clinical Communication Technology - Lived Experience as an Outcome

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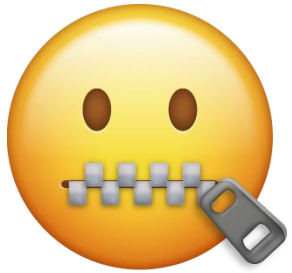
Dallas-Fort Worth Chapter
ANIA
Where caring and technology meet

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 Emoji's

A Few Emoji Facts

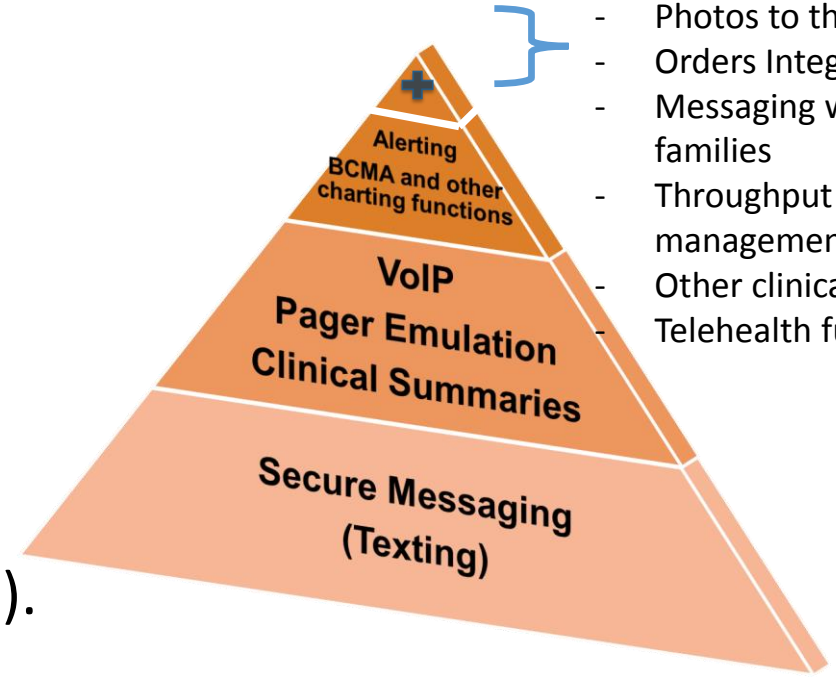
- Emoji use exploded in 2012, when iOS 6.0 was released.
- 'Emoji' was added as a word to Oxford Dictionaries in 2013.
- Emoji support for Twitter's web version was only introduced in April of 2014.
- Most popular emoji's: face with tears of joy, red heart, face with heart eyes, and kissing face
- We 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.

Brief Overview of Secure Messaging Systems

- 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.

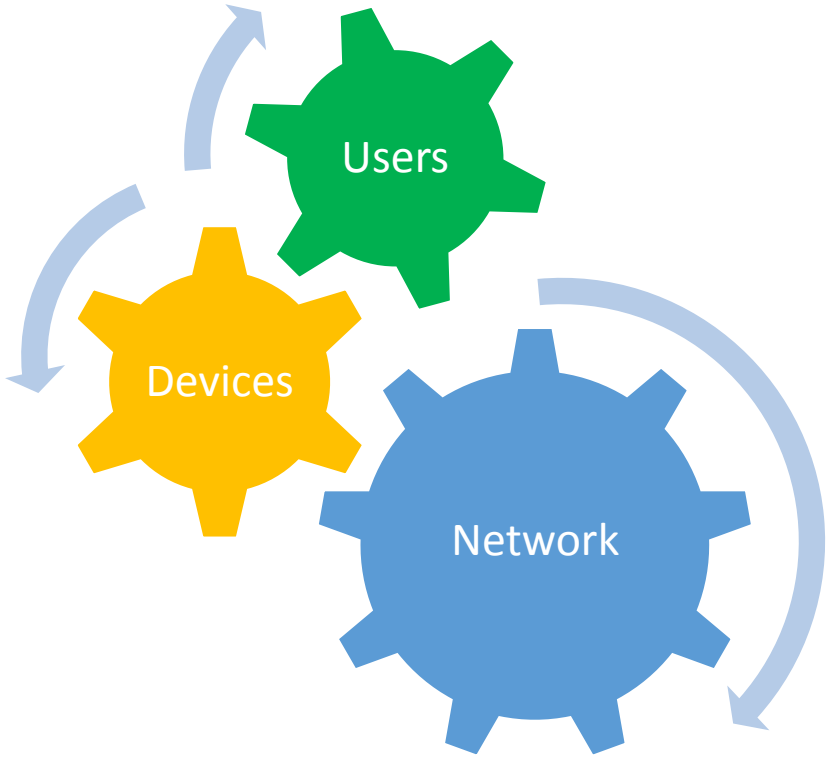


- Photos to the EHR
- Orders Integration
- Messaging with patients and families
- Throughput and bed management integration
- Other clinical system integration
- Telehealth functions

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.

INFORMATICS

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

Production Support:
Are you ready for a
Continuous Delivery Model?

Legal:
Records and Retention
Physician BYOD Model

IT Security:
Application Review
Network Authentication
Provisioning Model

Compliance:
Privacy
Audits
Picture transmission

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

Executive Sponsorship:
Organizational Change
Management

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

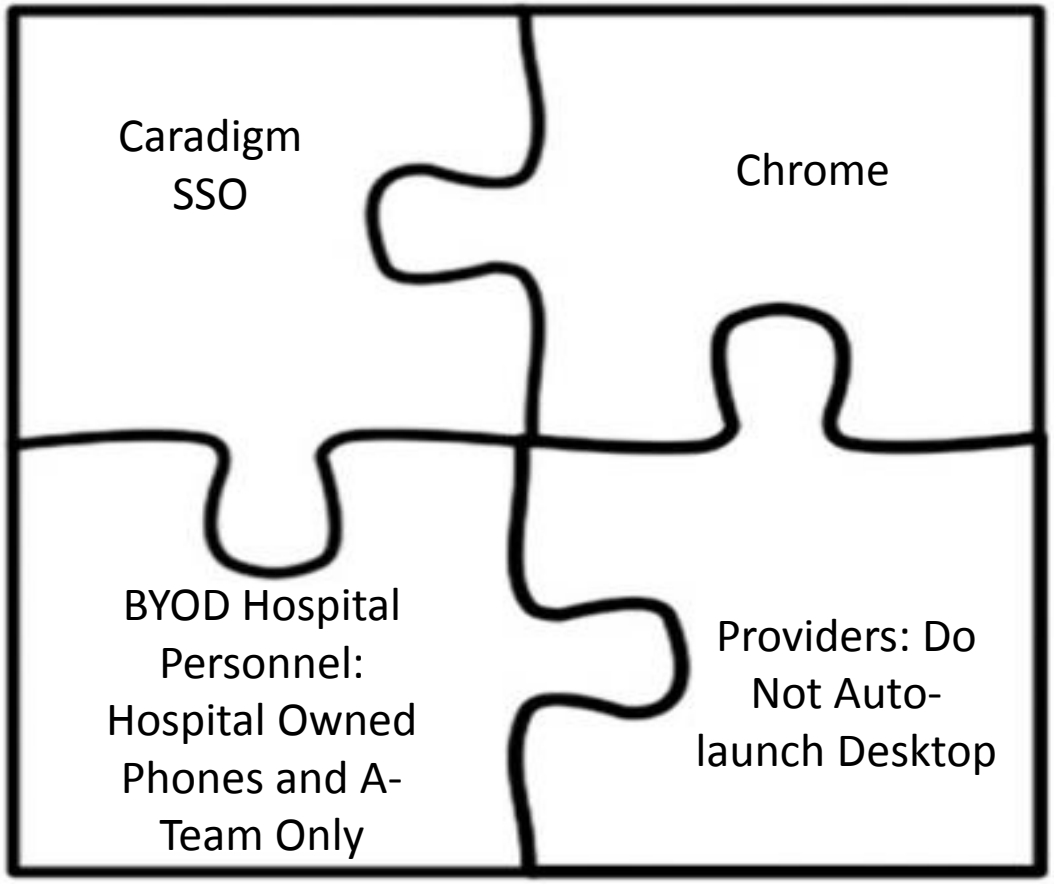
Organization Team (daily)

- ❑ 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?



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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

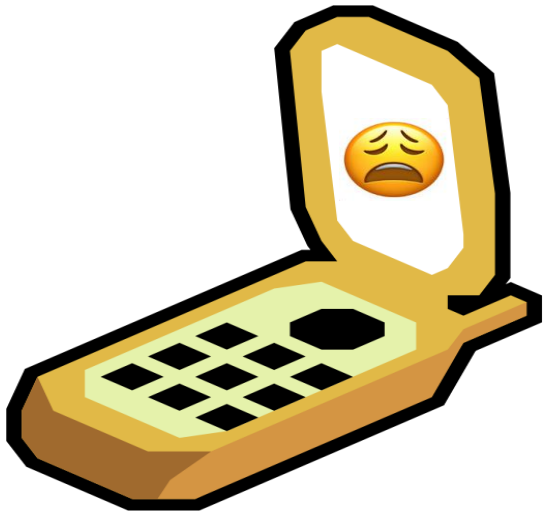
- Communication Campaign
  - Leader Talking Points
  - Fact Sheet-Staff and Providers
  - Messaging Flyer-Staff and Providers
  - PowerPoint Presentation
- Training Collateral
  - Training Guide
  - Trifold
  - BYOD Access Code and Download Information
  - eID Process for Secure Messaging
- Data Collection 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

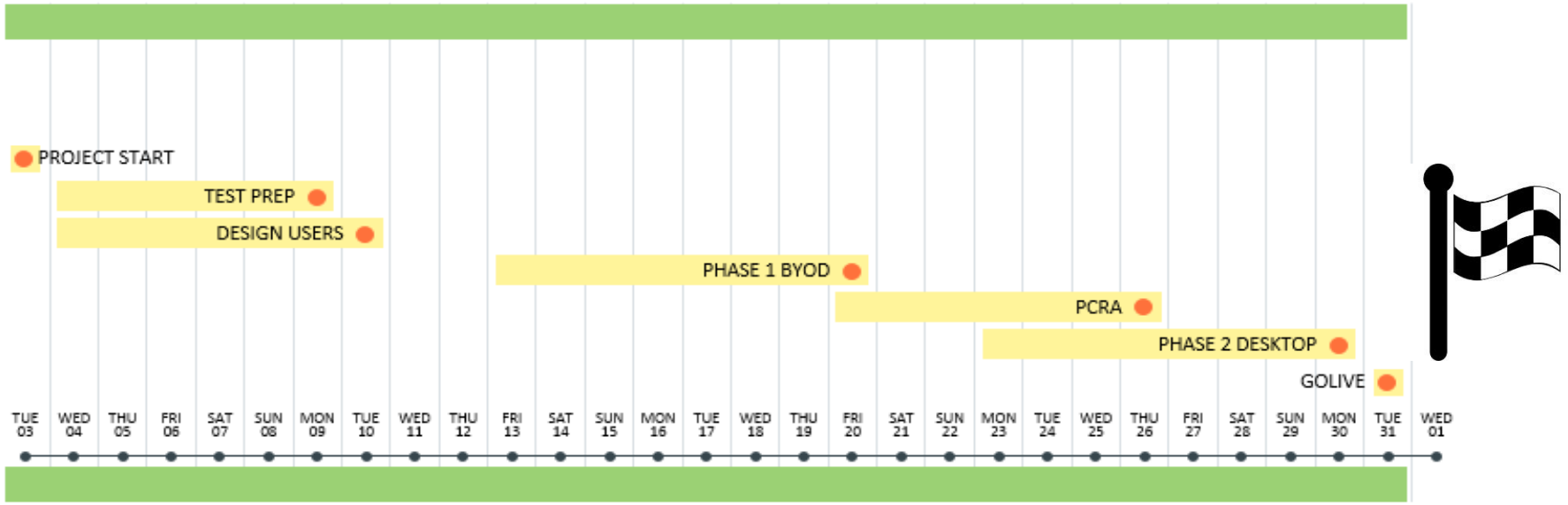
- How will you communicate the project to your credentialed provider community?
- Suggested physician communication tactics:
  - Service Line Department Heads
  - Flyer Postings
  - Medical Executive Committee (MEC)
  - Blast Faxes
  - Emails
  - Newsletters
  - 1:1 Meetings
  - Medical Staff Office
  - 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

PROJECT TIMELINE



ENTER START DATE: 10/3/2017

ACTIVITY	START	END	NOTES
Project Start	10/3/2017		Kickoff, Technical Readiness Assessment Completed
Test Prep	10/4/2017	10/9/2017	DUE: ID Admin rights and testers, 3 testing PCs named
Design Users	10/4/2017	10/10/2017	DUE: User Workbook due, Training Checklist; Configure testing workstations
Phase 1 BYOD	10/13/2017	10/20/2017	DUE: Admin BYOD and 3 PC's Testing, Staffing Plan, PCRA, User Provisioning
PCRA	10/20/2017	10/26/2017	BYOD Support; SSO Configuration & Provisioning Training
Phase 2 Desktop	10/23/2017	10/30/2017	DUE: Prod validation, Phase Gate, Desktop rollout
GOLIVE	10/31/2017	10/31/2017	GOLIVE
TTS	11/10/2017	11/10/2017	Transition to Support
Adoption	11/16/2017	11/16/2017	Adoption Review Session

Adoption Metrics - Who is logging in and texting?

400 Bed Acute Care Hospital

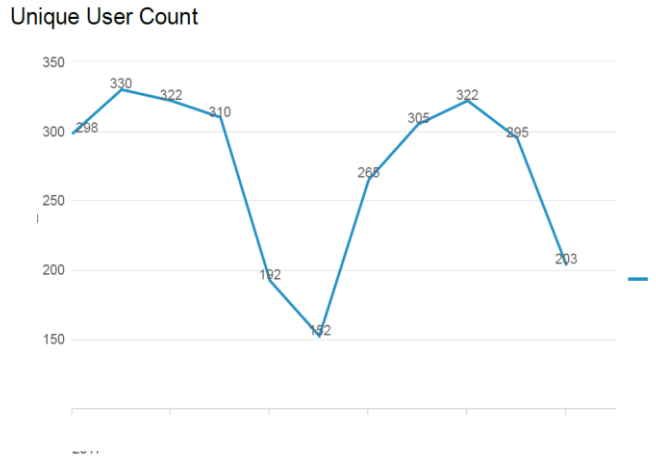
	Logged In	Messages Sent
REGISTERED NURSE	506	140
PHARMACY, STAFF	108	93
MD	82	72
SECRETARY, UNIT	21	0
LABORATORY	18	0
HIM	13	14
CASE MANAGEMENT	12	7
REGISTERED DIETICIAN	12	4
RESPIRATORY	10	1
MONITOR TECH	8	0

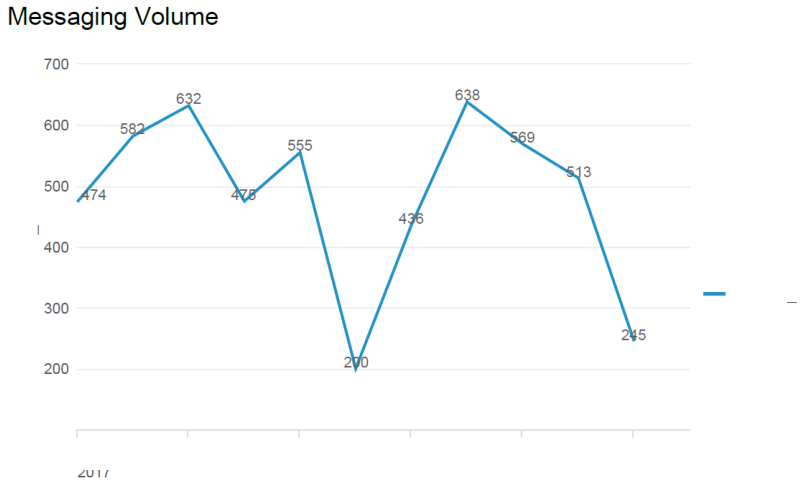
167 Bed Acute Care Hospital

	Logged In	Messages Sent
REGISTERED NURSE	75	325
RECEPTIONIST	12	219
MD	7	29
CASE MANAGEMENT	6	12
PHARMACY	4	13
CORD, QUALITY/PI	4	107
TECH, EMERGENCY MEDICAL	2	48
CORD, OFFICE	1	77
EDUCATOR, CLINICAL	1	52

Adoption Metrics – What does success look like?

Secure Messaging Stats - 2 weeks post Go Live					
		# of Login's			Sent Messages
Facilities	Unique Users	Desktop	Mobile	Total	
Site 1	130	580	62	642	794
Site 2	118	74	2	76	28
Site 3	109	783	64	847	338
Site 4	105	287	28	315	117
Site 5	99	852	273	1125	1201
Site 6	60	921	38	959	97
Site 7	32	15	48	63	70
Site 8	28	28	155	183	256
Site 9	17	456	67	523	382
Site 10	16	229	74	303	382
Site 11	12	787	152	939	1023
Site 12	9	145	139	284	312
Totals	735	5157	1102	6259	5000

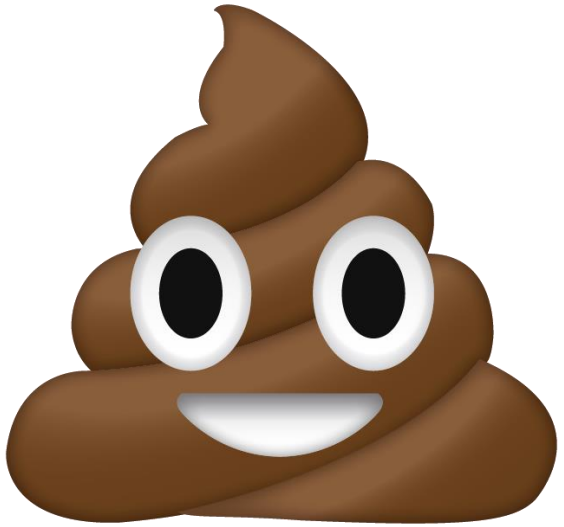




Clinical Texting Communication – IMNSHO – is not like consumer texting

- 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…

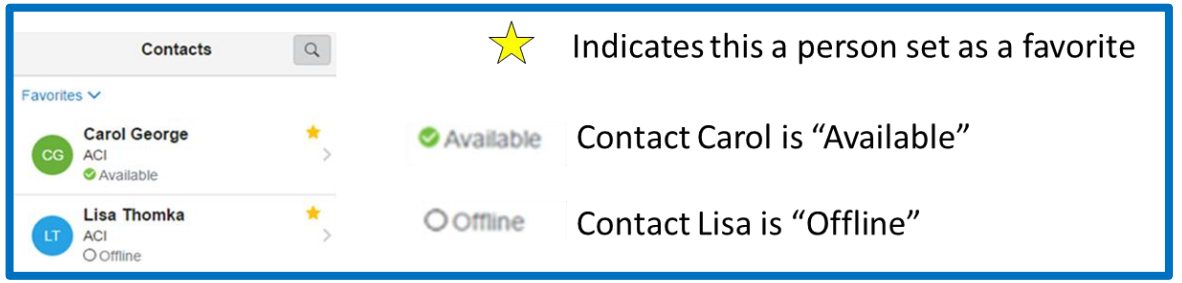


Healthcare Texting Etiquette Suggestions

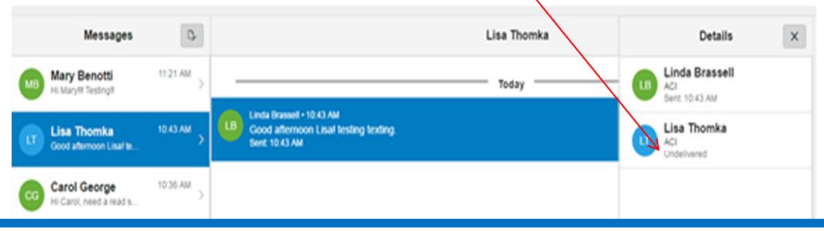
- Introduce devices as part of the care team to patients, families, and colleagues
- Put devices away when appropriate
- Avoid abbreviations
- Avoid emoji's/emoticons
- Watch your tone and use your manners
- Pay attention to grammar, spelling, etc.
- Check the recipients before hitting "Send"
- Include 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.



If receiving user is offline and a text message is sent, the sender can click on the message to view the Message Details, the user level message status will be ‘**Undelivered**’. You can see ‘**Sent**’ on the message in the conversation on the left below with timestamp and ‘**Undelivered**’ on the message details on the right.



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

Surgeon
Surgeon Orthopedic
Surgeon Trauma

  - 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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