The Importance of Creating A Real-time Health System

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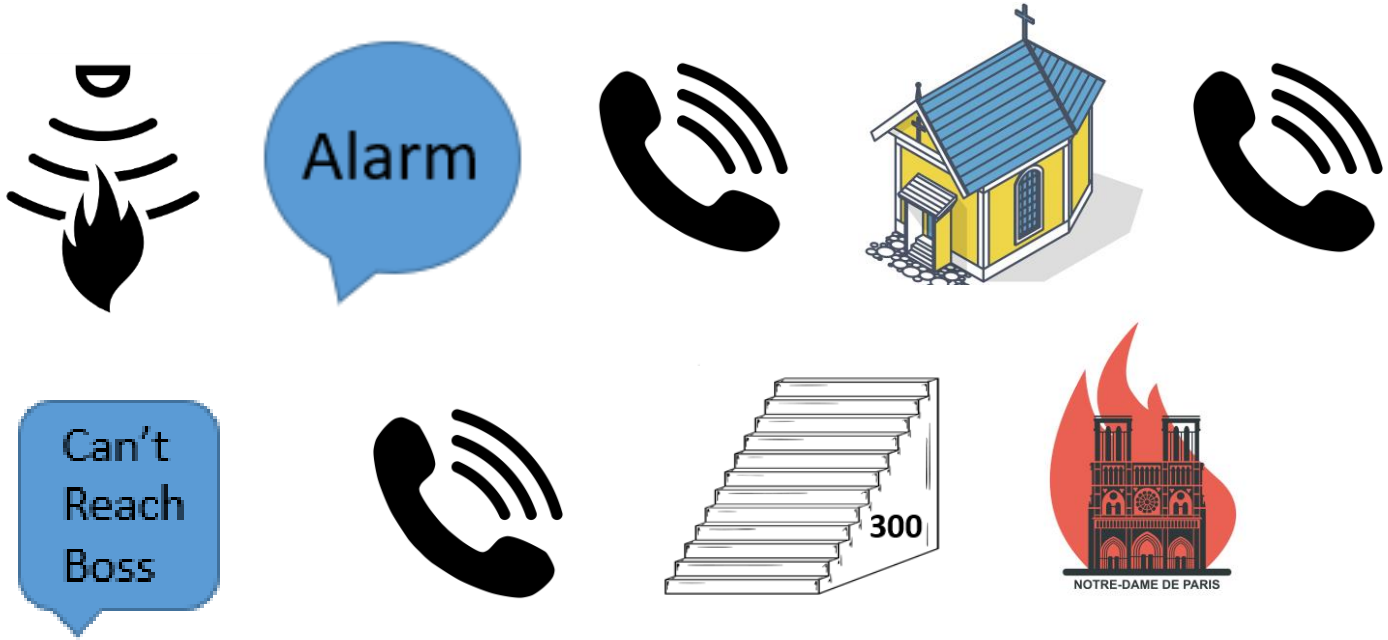
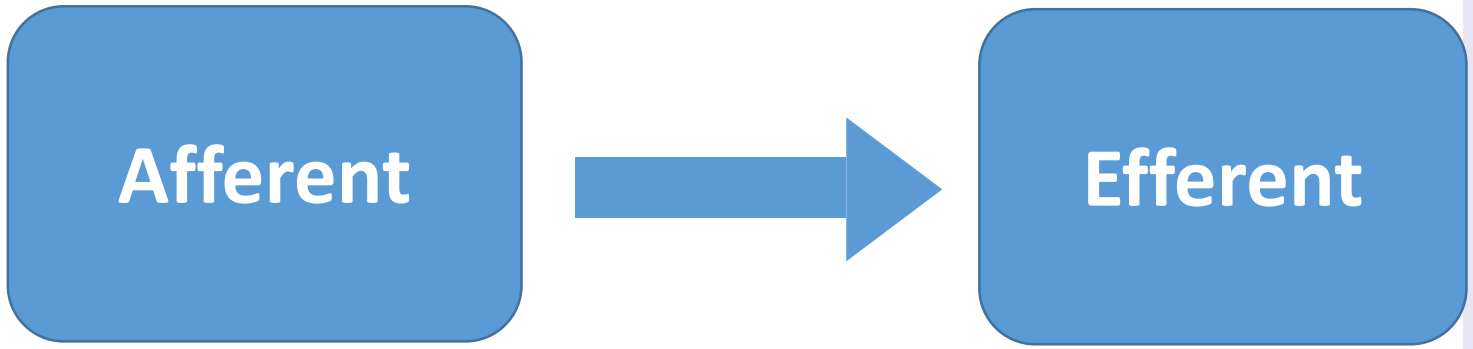
Halifax Health

Too Many Steps,
Too Much Wasted Time



30 Minutes After Alarm…

Communication Delays = Worse Outcomes



Real-time Data, Actionable Information and Effective Communication Are Critical

A Connected Ecosystem Simplifies Communication and Collaboration

HALIFAX HEALTH
Live your life well.

Creating an Effective, Real-time Health System

HALIFAX HEALTH

Tom Stafford, Vice President & CIO

Education:

Bachelors of Science Aerospace Engineering
Masters of Science Mechanical Engineering

Career:

United States Navy
Medical Device Design and Manufacture
Healthcare IT

IT Accolades:

10th Best Place to work in IT 2015 – Computerworld
2nd Best Place to work in IT 2016 – Computerworld
5th Best Place to work in IT 2017 & 2018 – Computerworld
10th Best Place to work in IT 2019 - Computerworld
Premier 100 Technology Leaders 2017 – Computerworld
Top 105 CIOs to watch in 2018/19 – Becker's Healthcare

About Halifax Health

Halifax Health Medical Center, Daytona Beach

–Opened in 1928
–600 beds
–“100 beds in intensive units”
–More than 500 physicians, representing 54 subspecialties

Halifax Health - Medical Center of Port Orange

–Opened in 2006
–80-bed community hospital
–20-bed emergency department
–8-bed intensive care unit

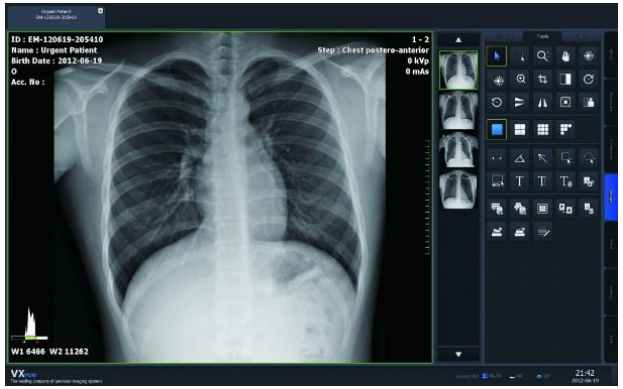
Agenda

- Intra-operability
- Examples of Real Time Health System Components and Outcomes

Evolution of Healthcare IT Intra-Operability

In the beginning…

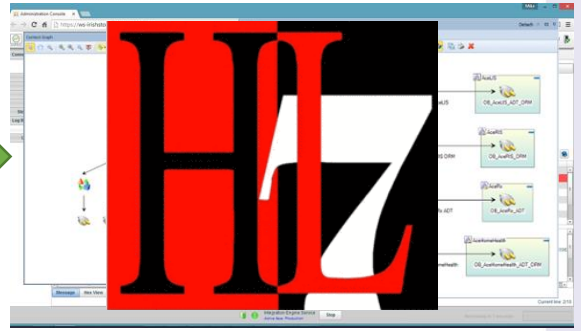
20 to 15 Years Ago…

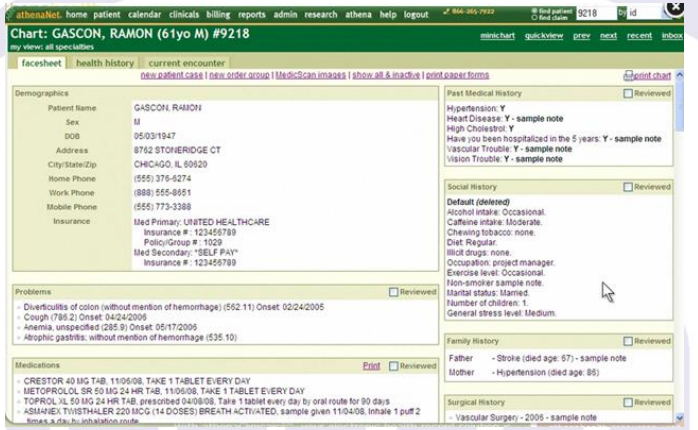


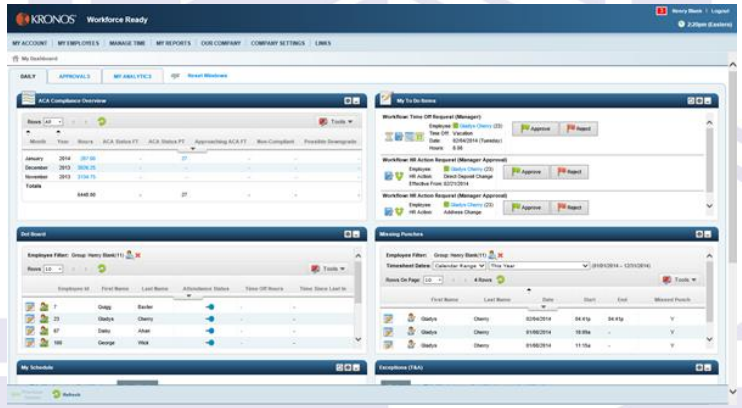
Collection Date & Time	05/24/2011
	16:30
^^P	
ALBUMIN	4.9
ALKALINE PHOSPHATASE	71
ALT/SGPT	32
ANION GAP	10
APPEARANCE, URINE	CLEAR
AST/SGOT	34
BASO #	0.0
BASO %	0.3
BILIRUBIN, URINE	NEGATIVE
BILIRUBIN,TOTAL	0.4
BLOOD UREA NITROGEN-VT	15
BLOOD, URINE	NEGATIVE
BUN/CREATININE RATIO	15.78
CALC OSMO	274
CALCIUM	9.3
CARBON DIOXIDE-VT	26
CHLORIDE-VT	105
CHOLESTEROL	226
CHOLESTEROL/HDLC RATIO	5
COLOR, URINE	YELLOW
CORRECTED CALCIUM	8.6

Evolution of Healthcare IT Intra-Operability

15 to 2 Year Ago…







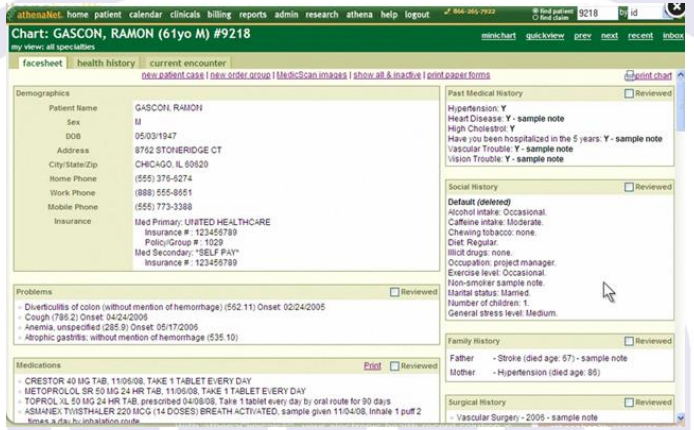
Evolution of Healthcare IT Intra-Operability

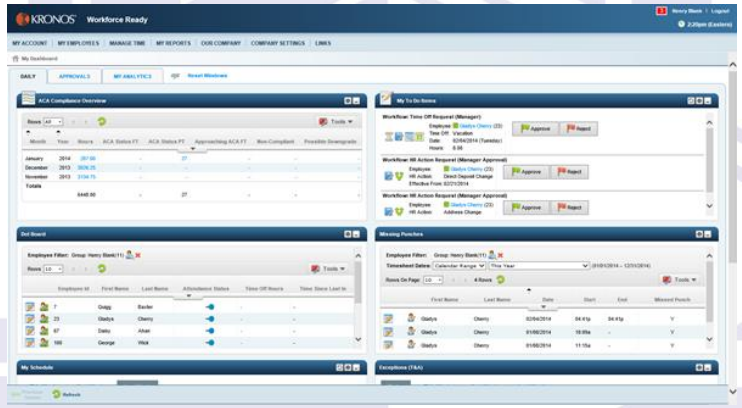
Present…

- Siloed Systems
- Big Data
- Clunky HL7 Integration

Evolution of Healthcare IT Innovation

Last couple of Years…





Infrastructure
for the RTHS

Evolution of Healthcare IT Intra-Operability

Real-Time Health System:

Intra-operability

Wearable Communication Devices

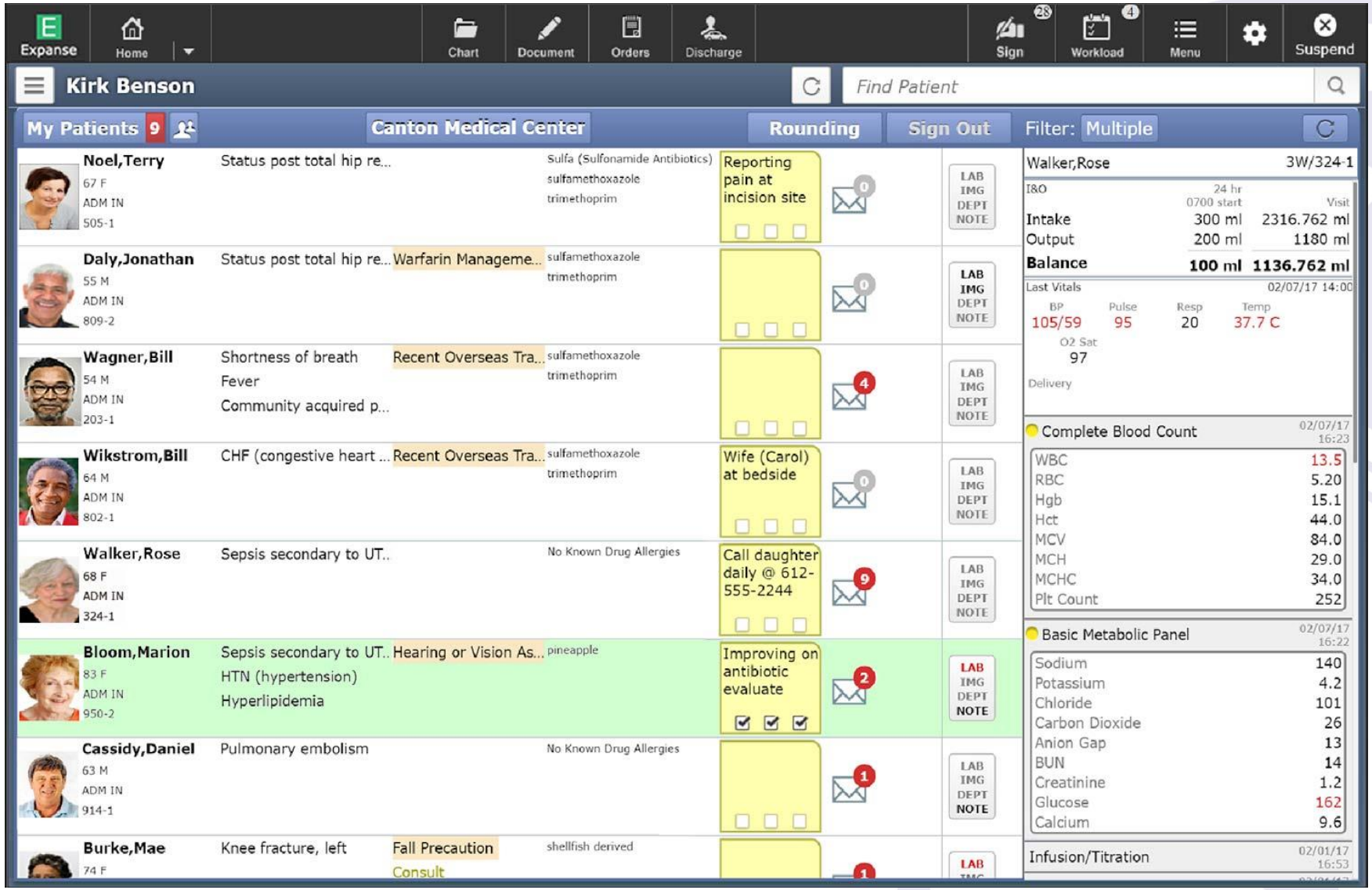
Predictive and Prescriptive ALERTS

Inform the Caregiver without harnessing them to a Computer

Facets of the RTHS

- EHR Mobility
- AI Powered Documentation Improvement
- Discharge Alerts
- Sepsis Alerting

EHR Mobility



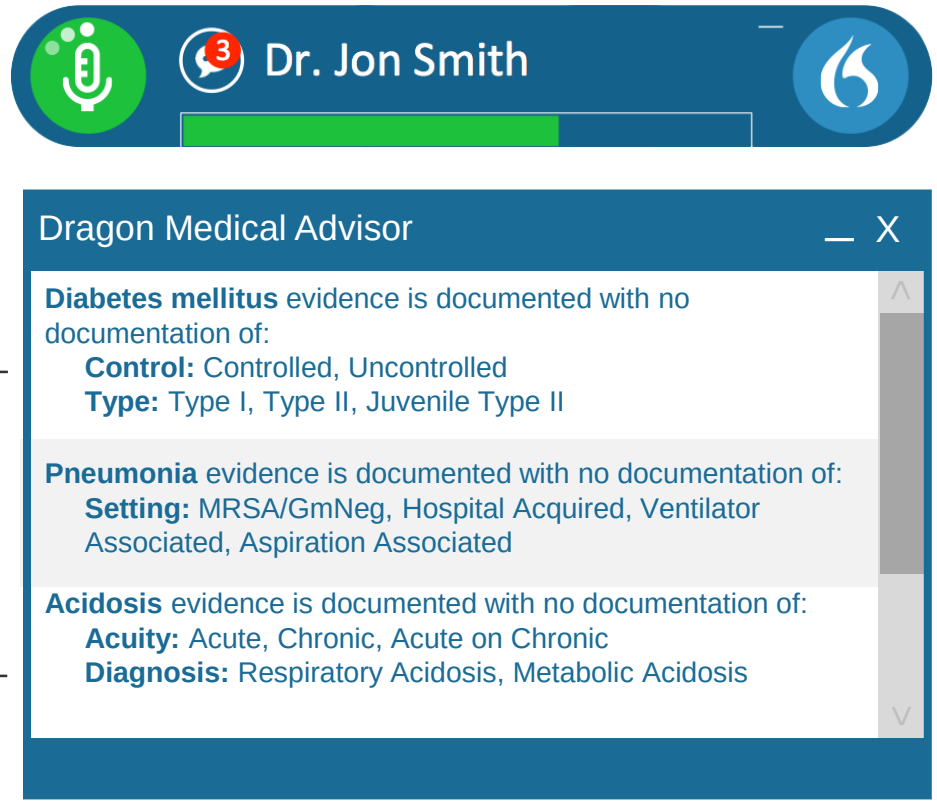
AI Powered Documentation Improvement

Real-time counter unobtrusively displays amount of available advice before advice window is opened as the provider is documenting in Meditech.

AI Powered Documentation Improvement

Increases diagnosis specificity reflects the appropriate HCC for risk adjustment.

Reduces post-discharge and out-of-context queries from CDI and coding teams.



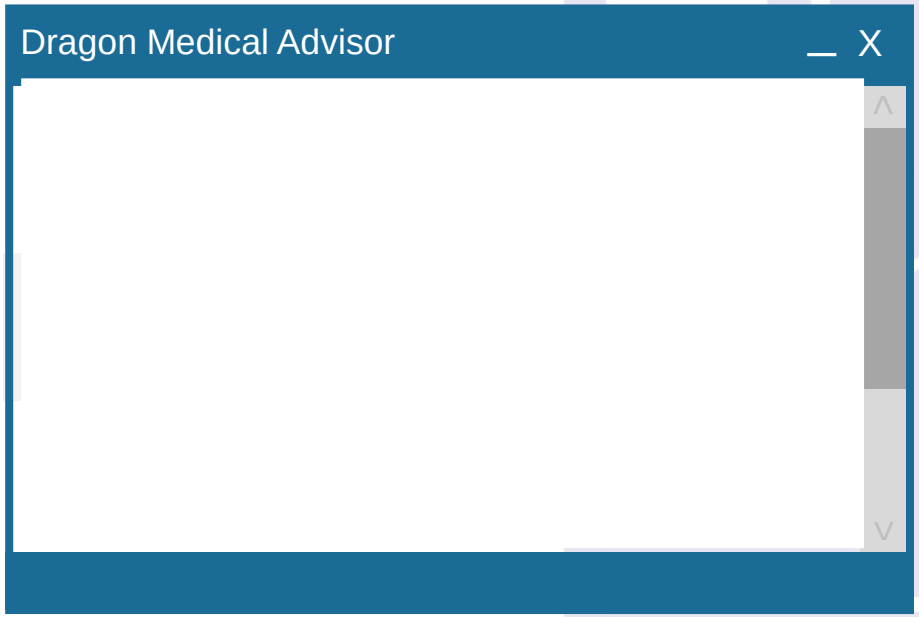
Accelerates hospital billing for inpatient and reduces denials across settings— advises on most common diagnoses impacting DNFB.

Identifies clinical quality opportunities and prioritizes potential PSIs and HACs so physicians can take immediate action.

AI Powered Documentation Improvement

Advice indicator disappears once **guidance is satisfied**

Real-time auto-processing of any note—dictated, transcribed, typed— **advice is resolved as documentation is updated.**



Intra-Operability for the RTHS

Healthcare Information System

Sepsis Alerting System

ED Throughput System

Data Analytics Engine

Orders, ADT, Results

Patient Septic Alert

ED Bottleneck Alert

Re-admission Alert

Integration Engine

Bed Tracking System

API to API

Patient Specific Orders, ADT, Results, & Alerts

Patient Placement Alert

Direct Interface

Badge & Smartphone App

Discharge Alerts

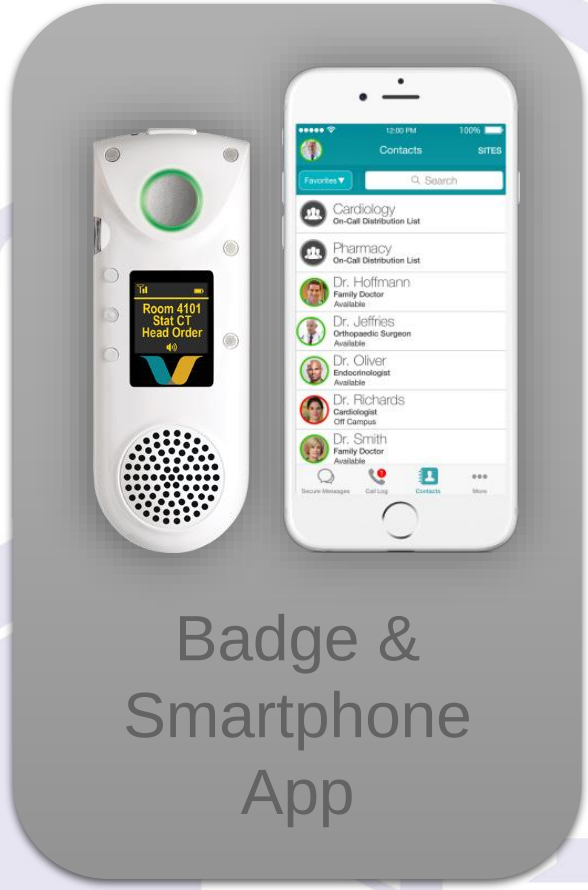
Healthcare Information System

Orders, ADT, Results

Integration Engine

API to API

Patient Specific Orders, ADT, Results, & Alerts



Badge & Smartphone App

Discharge Alerting

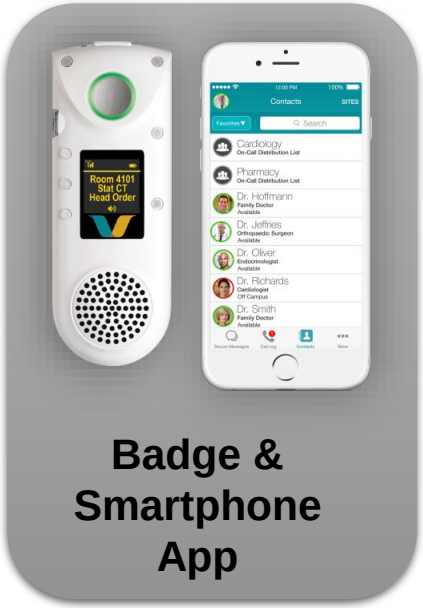
Sepsis Alerting

Healthcare Information System

250+ Clinical Data Points

Wolters Kluwer

POC Advisor™



API to API

Sepsis Alert Acknowledgement

Patient Sepsis Alert

API to API

Patient Sepsis Alert

Sepsis Alert Acknowledgement

Integration Engine

Predictive Alerting

Prescriptive Alerting

In Summary…

- API Connections of Disparate Systems
- Partner Innovations
- Clinical Communication System
- Infused with Processes and People

Creates the Real-Time Health System

- Information
- The Power of AI
- Predictive and Prescriptive Alerting

Improves quality of care, provider and nurse satisfaction, and outcomes for the patients we serve.

THANK
YOU
return