

System Engineering Enabling Transformational Change: Engineering a New Healthcare System

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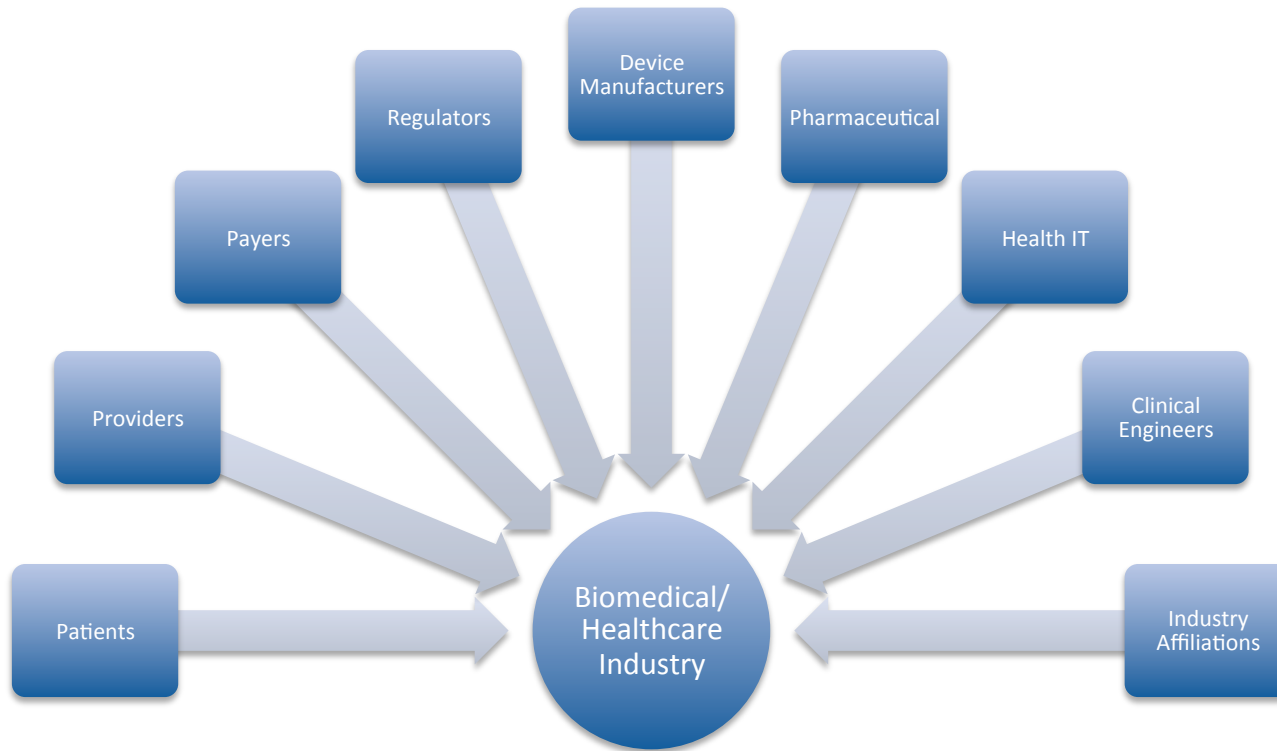


Perspective

- Component Level Focus
- Incorporating System Engineering
 - Scope
 - System Boundaries



Industry Stakeholders



Presentation Overview

Observations

Historic
Context

Current
Approaches

New
Initiatives



Disclaimers

- Purpose
- Coverage
- Involvement



Observations

Alarms



2011 AAMI Alarm Summit publication

Electronic Health Records



User Interfaces

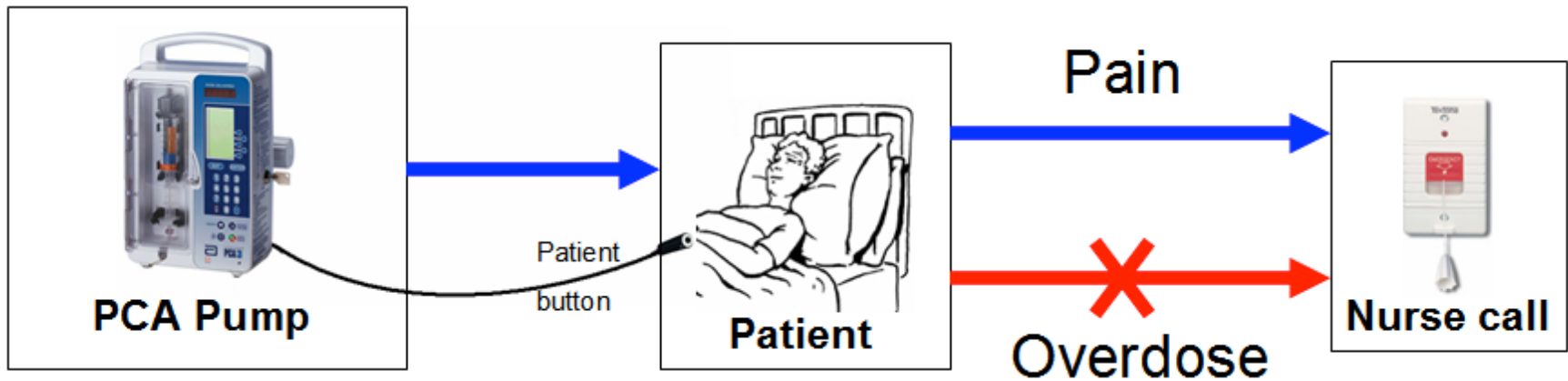


Safety



Alarms

- Fatigue
- Smart Alarms

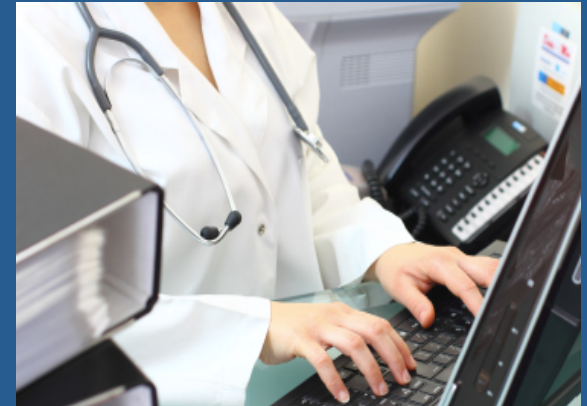
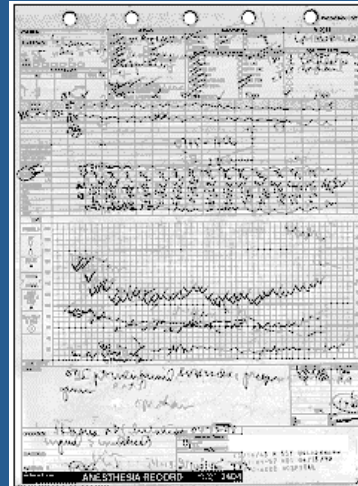


- Mental Model



Electronic Health Records

- Completeness
- Contextual Awareness
- Data Integrity



User Interface

- User focused design



Safety



- Occurrence
- Regulation
- Adverse event investigation & reporting



Context

- Health Information Technology for Economic and Clinical Health Act (HITECH)
- Affordable Care Act
- Insurance Changes
- Regulatory Pathway



Current Approaches

- MD FIRE
- ICE
- Clinical Scenarios
- Quantum Project

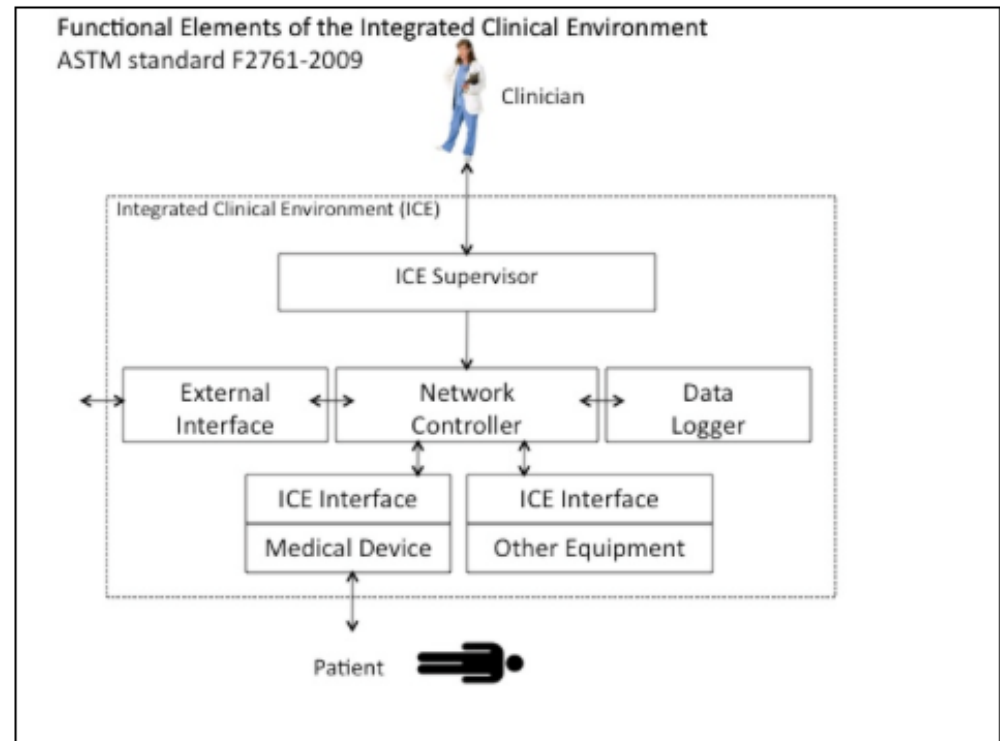


Figure 1: ICE Functional Model, redrawn from ICE Part I (ASTM F2761-2009).



Future Focus Areas

- Research: System Safety
- Industry Systems Awareness



Questions



Survey

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