Online Data Supplement 1: ARGUS Program Diagram for Details of Urgent A Pod Physician [Central] and Nursing [Distributed] Telemetry Display / Station Interventions.

Floor map of Urgent A care area.

Post-intervention image of Urgent A care area northside nursing station featuring newly installed distributed telemetry large-screen display and interface.

Post-intervention image of Urgent A care area southside nursing station featuring newly installed distributed telemetry large-screen display and interface.

Post-intervention image of Urgent A care area physician station featuring repositioned central telemetry displays and touchpad interfaces.
Online Data Supplement 2: ARGUS Program Diagram for Details of Urgent B Pod Physician [Central] and Nursing [Distributed] Telemetry Display / Station Interventions.

Floor map of Urgent B care area.

Post-intervention image of Urgent B care area northside nursing station featuring newly installed distributed telemetry large-screen display and interface.

Post-intervention image of Urgent B care area southside nursing station featuring newly installed telemetry distributed large-screen display and interface.

Post-intervention image of Urgent B care area physician station featuring repositioned central telemetry displays and touchpad interfaces.
Online Data Supplement 3: ARGUS Study Tool.

ARGUS Study Tool

Session date: ___/___/ 2010 / 2011 / 2012

Session time: ___:___:____

Session ED census: Active patients in all ED treatment rooms: ______
Patients in all ED waiting areas: ______

Arrhythmia type: Sinus bradycardia       Ventricular tachycardia

Simulation location (area / room): Urgent A _____       Urgent B _____

Time of arrhythmia initiation: ___:___:____

Time of arrhythmia detection: ___:___:____

Arrhythmia first responder role: CNA / ED technician
Physician
Nurse
Other: _______________

Method of detection: Central telemetry display
Distributed telemetry display
Bedside monitor
Other: _______________

Correct recognition of simulated arrhythmia: Yes       No _______________
Online Data Supplement 4: ARGUS Study Protocol.

Pre-simulation:

☐ Discuss study session clearance with the on-duty ED clinical manager
☐ Determine the absence of exclusion criteria for study conduct
  (e.g., surge / disaster conditions, program personnel on active clinical duty)
☐ Identify an unoccupied ED Urgent A / B pod treatment room and mark off as “occupied” on MedHost CPOE tracking system
☐ Connect simulator to in-room bedside monitor

Simulation:

Investigator 1 (bedside monitor):

☐ Generate study arrhythmia monitor tracing as per randomization chart
☐ Start stopwatch when arrhythmia displays on bedside monitor
☐ Observe at bedside
☐ Record first responder(s) and time of arrival at bedside
☐ Distribute gift cards to first 2 respondents
☐ Terminate arrhythmia at 180 seconds if no responders
☐ Disconnect simulator

Investigator 2 (central + distributed telemetry stations)

☐ Start stopwatch when arrhythmia displays at central telemetry station
☐ Observe at central telemetry station
☐ Record first responder(s) and time of recognition of arrhythmia
☐ Distribute gift cards to first 2 respondents
☐ Delete simulated arrhythmia record from telemetry system log
Please drop in your feedback + suggestion stub to indicate your agreement with one of the following five assessments of the new telemetry monitor system displays / interfaces.

1. The system is a new technology with potential to help me improve the care of my patients.
2. The system represents a truly significant innovation to correct medical errors and to address various healthcare safety issues for my patients.
3. The system will not offer new and useful capabilities for the care of my patients.
4. The system update (new displays / interfaces) has started helping my workflow and empowering me to use it in a new way to improve the care of my patients.
5. The system already helps me take care of my patients on a regular and routine basis.

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Number of responses (total 28) indicating agreement with each “Hype Cycle” assessment