

October 8, 2017

Mountains and Plains on FHIR

#26 Sepsis Prediction System



INTRO

THE TEAM

PROJECT

TIMELINE

Team Topic Presentation Deliverable 1 - 10/8/2017

David Hills
William Lyman
Carol Rice
Kevin Brandt

INTRO



Important Healthcare Terms for this Project:

- Sepsis - A condition when the body's response to an infection causes injury to itself.
- qSOFA - The Quick Sequential Organ Failure Assessment score identifies patients at high risk for a poor outcome with an infection.

**Presentation
Overview**



Presentation Overview

1

Introduction

2

Project Team

3

Project Overview

4

Timeline



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THE TEAM

Mountains and Plains on FHIR

Four team members hailing from:

- Colorado x 2
- Iowa
- Wisconsin

TEAM



TEAM

Roles



Dr. Shamin Nemati
Project Mentor



Dr. Marc Engels
Project Mentor



William Lyman
Development



Carol Rice
Development



Kevin Brandt
Project Manager



David Hills
Development, QA

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PROJECT

A FHIR-Enabled Streaming Sepsis Prediction
System for Emergency Departments

Project
Overview

Objective

Design
Overview



Project Overview

Sepsis is among the leading causes of morbidity and mortality in critically ill patients.



Recent studies have shown that survival benefit from early intervention in sepsis is almost entirely dependent on time-to-first antibiotics.

No clinically validated system exists for accurate, real-time prediction of sepsis onset in the Emergency Departments.

Objective

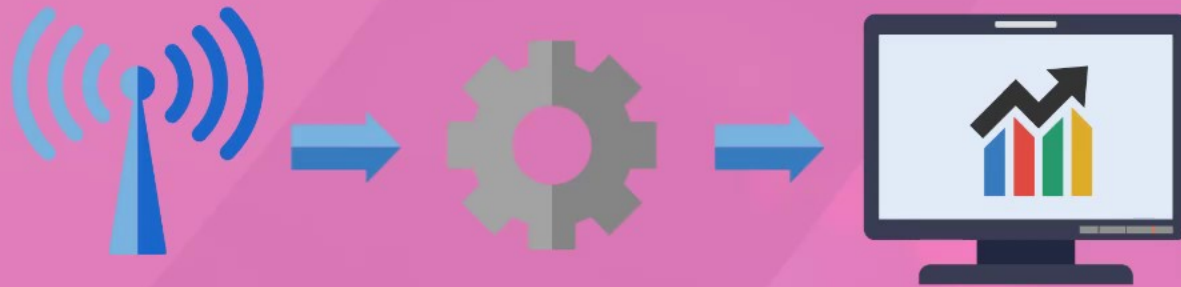
Physician Facing



Design a cross-platform Sepsis Prediction and Alert application.

Design Overview

Three Main Components



1. FHIR enabled component to interface to a FHIR server to retrieve streaming patient data.
2. Calculation and control component that can handle multiple simultaneous patients to calculate qSOFA and other sepsis risk factors.
3. Display component that shows a visualization of the calculated data.

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TIMELINE

Proposed Major Milestones

