To explain adverse events, we transform medical staff and patient location data to:

- Measures of workload and wait time
- Within and between team members’ communication patterns
- After adverse events activities

Use of statistical analyses and machine learning methods to explore the antecedents of errors and adverse events.

DFCI RTLS Network: 1000+ sensors, 250 Staff, 1000 Patients per day, 7 clinical floors, 20 exam rooms per floor, 28 infusion chairs per floor, 500,000,000 data points

Preliminary results

Patient and staff locations by day of the week and hour

Events by location by severity

Events by hour

Day of the week, Hour