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## JANICE NEWSOME & ZACHARY BERCU

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### Required Skills:

FHIR, Cerner, Android/iOS, Project Management, Communications

### Preferred Team Communications:

Weekly or as needed

### Data Sources:

TBD.

### Other Items:

Familiarity with data retrieval from the radiology scheduling system (Cerner) adhering to strict requirements for encryption and access.

Ability to create an analytical solution.

Project has timezone flexibility. Mentors and students will determine a good time for virtual meeting.

**Intellectual Property:** TBD.

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## WAIT TIME MANAGEMENT

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Surgical specialties, including our field (Interventional Radiology; IR), are based on complex workflow. A solution for one of the most complex workflows (IR) could work easily for other fields. Patients include: outpatients, inpatients, emergencies from the Emergency Room, Intensive Care Unit, and wards. Patient workflow involves a Pre- and Post-Procedure Care Area (PPCA) and the Post-Anesthesia Care Unit (PACU). Unpredictability and system opacity worsen anxiety for patients awaiting procedures. Providers are often aware where room turnover stands, but given patient names on workflow solutions, these systems are not available to patients. Wait times factor into patient satisfaction scores and current reimbursement models are impacted ultimately by these scores.

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### PROJECT OBJECTIVES

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To create a mobile system whereby patients and families can see what is occurring in anticipation and during procedures.

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### SUCCESSFUL PROJECT

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The solution would encrypt data to prevent any protected health information (PHI) from being shared. Patients would have a unique identifier to know where they stand in line for a procedure and if their room is in use, if a procedure is going longer than expected, etc. This would be similar to an airport scheduling information system but would be anonymized to protect patient information. For providers and staff, the global overview would provide rapid assessment to know who has been waiting longer than anticipated (e.g., the color may change when a patient has been waiting greater than 30 minutes for their procedure). This would allow staff to anticipate patient anxiety and help provide updates. These data could be sent to mobile devices or a kiosk available to patients. The ultimate outcome would be a new quality metric surrounding patient wait times similar to what exists for the ER.

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