Regional Pearls

The Problem
Regional anesthesiologists need to take into account many different factors when deciding on the blocks they perform. These factors change on a case-by-case basis and most anesthesiologists don’t have in-depth experience with every block. This lack of experience leads to gaps in learning and anesthesiologists often need to fill these gaps by referencing several resources through a variety of mediums. In the high-stress and fast-paced medical environment, finding all relevant information to prepare for a procedure becomes even more difficult. Anesthesiologists at Seattle Children’s Hospital came to us to see if we could help them address the many challenges they face when it comes to regional blocks.

Our Solution
Regional Pearls is a learning and referencing tool for anesthesiologists which streamlines block information into a single accessible platform. The application helps anesthesiologist learn more about regional blocks and prepare for procedures by providing them essential block information in a detailed and concise manner. Unlike the tools of the past, anesthesiologists can use this app on their personal mobile phones for quick on-the-go learning in the hospital. Our hope is that this app will assist users in accurately choosing and executing blocks and will improve the way anesthesiologists prepare for regional block procedures.

How It Works
- Mark a surgical location: Select the location of surgical site where the block should occur.
- Explore relevant nerve blocks: View available nerve blocks corresponding with surgical site and compare their coverage.
- View preparation details: Prepare for the procedure with aggregated information from reliable resources such as Nysore.

The Design Process

Preliminary Research
Identified our target user’s needs and pain points when preparing for a regional block
- Competitive Analysis
- Field studies
- Surveys
- Interviews
- Codebook

Ideation & Design
Translated user needs into components of a mobile application using participatory design techniques
- Components list
- Sketches
- Participatory Design
- Wireframes

Testing & Refinement
Gathered feedback from our users to refine and iterate on the app’s design and usability
- Heuristic Evaluation
- Usability Testing
- Affinity Analysis
- High Fidelity Prototype