**Cast Care Mobile Application**

Overview

A mobile application to provides patients that have fiber glass or plaster cast applied to a fracture with a guide to take care of their cast, and to identify when they are experiencing symptoms that require a return to the physician office or emergency room for follow-up treatment. Over time, casts may become damaged, shrink or expand, break, cause skin irritations, and infections. This application will provide patients with instructions on how to care for their cast, and enable them to simply identify when a problem requires medical attention and the urgency of the intervention. This will reduce medical complication and improve the overall patient experience.

The end users will be patients and parents of patients that visit an emergency room, urgent care or orthopaedic physician’s office that receive a plaster cast or fiber glass as part of their treatment.

This application is freestanding and will be shared with the patient at the point of care through discharge papers and direct communications within the care setting. It will not contain any protected health information.

Medical Subject Matter Experts

The care instructions and complications algorithms will be provided by medical professionals that include orthopaedic technicians with experience in the application of plaster and fiber glass, and orthopaedic surgeons that are responsible for treatments of different types of fractures.

Development Team Needs

The development team will be responsible for developing a visually appealing, user-friendly application that is easy for patients to navigate. The client will provide technical medical expertise, but the development team will have freedom on how the application functions.

The application has two focus areas; cast care and complication identification. The cast care focuses on patient education through checklists, photos and videos. The complication identification potentially resolves in a medical intervention. The medical intervention will result in directions to seek emergency, emergent or routine follow up care.

The development team may take this project in two directions: as a public information tool or as a branded tool for orthopaedic practices. The first direction will provide a free application to the general public that could be used by any end-user and distributed by any medical professional. The second direction could enable the application to be commercialized by branding the application for use by sponsor orthopaedic practices. In the second version, the developers will need to resolve how to personalize the application with branding, custom content and practice-specific follow up instructions.