

FREEDOM QRS:

Pre-Op Patient Engagement

Many reports have shown that for total knee arthroplasty (TKA), pre-operative patient education increases patient confidence prior to surgery and reduces post-operative length of stay (LOS), post-operative patient complications and maximizes the patient's outcomes and return to targeted activities of daily living (ADL).¹⁻³ However, real-time engagement between the surgeon and patient is minimal and occurs only during face-to-face office visits.

The Maxx QRS Recovery® mobile application (app) is designed to allow for continual patient engagement and monitoring of the surgeon's pre-operative protocols for facilitating and optimizing joint care education and surgical preparation for maximizing patient outcomes.

- **Pre-operative joint care education leads to improved compliance and clinical outcomes.**
- **Between office visits, monitoring pre-op preparation compliance is difficult.**
- **Freedom QRS Recovery app is customizable to the surgeon's pre-op education protocol.**
- **Scheduled reminders and participation monitoring maintains surgeon/patient engagement.**
- **The QRS Recovery app prompts pre-operative preparation and records exercise performance.**

Access to "smart" mobile devices has become common and well accepted in many facets of personal and professional daily life. Moreover, the development and use of medical education apps are becoming more popular and generally include radiographic viewing / assessments, medical publications (journals, education forums, meetings), and remote caregiver/patient consultation programs. The Maxx QRS Recovery facilitates pre-operative surgical preparation and joint care education for maximum patient outcome.

The Maxx QRS Recovery app combines case planning between the surgeon and manufacturer, customizable pre-operative education, exercise protocol guidance and reminders between the surgeon and the patient, and overall tracking and recording of the patient's compliance and progress through the pre-determined scheduled pre-operative landmarks. Continuous real-time delivery and monitoring of content to the patient prior to surgery via the mobile QRS Recovery app is an effective method for facilitating the point-of-care education and exercise for maximizing engagement while minimizing overhead cost burdens of similar in-house programs.¹⁻³

The reduction of health care costs associated with patient educational programs are frequently reported, but with limitations involving engagement frequency and compliance.¹⁻³ The Maxx QRS Recovery app significantly contributes to of heath care cost reductions while maximizing patient outcome.

REFERENCES

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3. O' Reilly, *et al*. Educational impact of joint replacement school for patients undergoing total hip and knee arthroplasty: a prospective cohort study. *International Orthopaedics (SICOT)* 42, 2745-2754, 2018.