

Implementing a Patient Engagement Platform For Cardiac Enhanced Recovery After Surgery (ERAS)

Key Results:

- ↓ 0.9 days LOS
- ↓ 72% Readmissions
- ↓ 69% Observation stays
- ↓ 13% ED visits
- ↓ 60% Discharge to SNF

“Patient engagement technology like SeamlessMD is a recommended component in the [ERAS® Cardiac guidelines](#). SeamlessMD has empowered our patients to be partners in their own care, leading to better patient experiences and clinical outcomes.”



Daniel Engelman, MD
*Medical Director,
 Heart & Vascular
 Center,
 Baystate Health*
*President, ERAS®
 Cardiac Society*

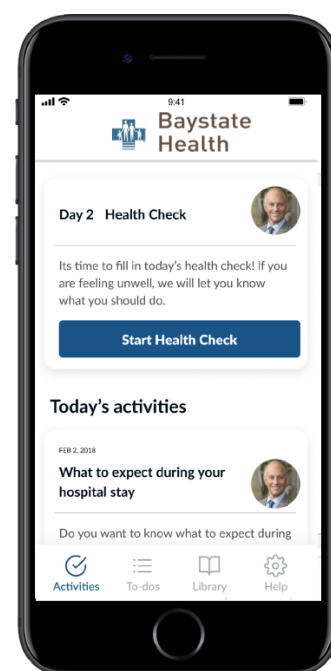
Baystate Health, a 5-hospital health system in Western Massachusetts has made the shift to value-based care (i.e. Next Gen ACO). Integral to this plan was to implement one of the world’s first Enhanced Recovery After Surgery (ERAS) programs for Cardiac Surgery. **Baystate’s goals for its Cardiac ERAS program were to improve patient satisfaction while reducing hospital length of stay and readmissions.**

Dr. Daniel Engelman, Medical Director for the Heart & Vascular Surgical Program, and President of the ERAS® Cardiac International Society, recognized that patient engagement is an essential component for an ERAS program. However, he realized that **in-person education, instruction booklets and paper-based surveys resulted in limited patient compliance** and no easy way to track patient progress.

A Technology-Driven Solution that Empowers Clinical Teams to Improve Patient Care

Baystate realized that a technology solution would be critical to the success of their ERAS initiative. They therefore implemented SeamlessMD to provide a **patient engagement, remote monitoring and virtual care program** for patients undergoing cardiac surgery.

SeamlessMD engaged Baystate’s entire interdisciplinary care team to customize protocols and content on the platform to meet the needs of their ERAS Cardiac program.



Daily patient engagement



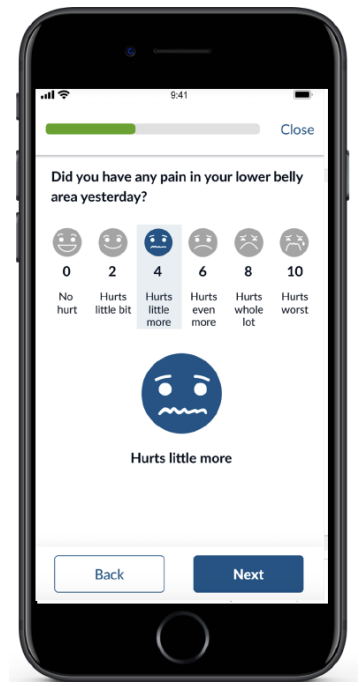
“SeamlessMD has been critical for our readmissions prevention strategy, allowing our care teams to monitor patients at home and catch complications earlier. Most importantly, patients love the SeamlessMD experience! Patients feel connected to our team every step of the way, even when they are at home.”



Cheryl Crisafi MSN, RN, CNL, Nurse Coordinator, Baystate Heart & Vascular Center, Baystate Health

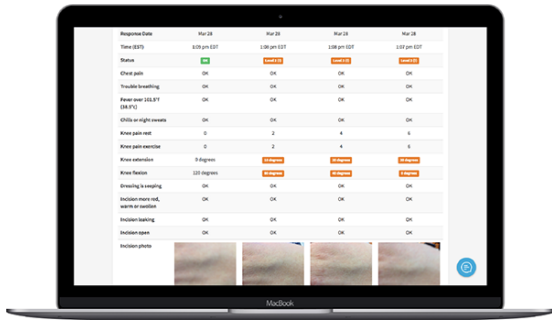
Patients and family members accessed SeamlessMD on their smartphones, tablets & computers, which provided:

- Reminders and education to promote ERAS compliance
- Videos featuring Baystate clinicians explaining how to perform key recovery exercises
- Interactive surveys to collect Patient-Reported Outcomes (e.g. symptoms, protocol compliance)
- Intelligent algorithms to flag patient issues and automatically provide feedback for self-management



Patient-Reported Outcomes tracking

An Intelligent, Remote Patient Monitoring System for Improving Outcomes



Remote Patient Monitoring Dashboards

Through SeamlessMD dashboards, the nursing team received alerts and patient responses to rapidly intervene for patients with low protocol compliance. Improved protocol compliance helped accelerate recovery time and reduce LOS.

After discharge, the nursing team continued to monitor alerts and patient responses. This enabled the team to monitor for early warning signs of complications (e.g. fever, incision issues) and reach out to patients to prevent ER visits and readmissions.

Clinical Outcomes Improved with SeamlessMD

↓ Readmissions, Observation Stays & ED visits

	Non-SeamlessMD	SeamlessMD	Change
Sample size	207	178	--
Readmissions	14.0%	3.9%	↓72%
Observation stays	5.6%	1.7%	↓69%
ED Visits	4.5%	3.9%	↓13%

↓ LOS & Discharge to SNF

	Non-SeamlessMD	SeamlessMD	Change
Sample size	183	177	--
Average Age	66.5	67.0	--
LOS (days)	8.4	7.5	↓10%
Discharge to SNF	25%	10.0%	↓60%

A matched, simultaneous cohort analysis was completed where age, morbidity and mortality risk did not significantly vary between the groups.

STS Risk of:	Non-SeamlessMD	SeamlessMD
Mortality	0.17	0.15
Stroke	1.3	1.3
Major morbidity	11.4	10.2