MultiCare Health System is the largest, not-for-profit, community-based, locally-owned health system in the state of Washington. The 11-hospital system offers a wide array of services including inpatient care, primary care, virtual care, urgent care, dedicated pediatric care and other specialty services. Over the years, MultiCare has been committed to providing quality health care to its communities.

The organization has invested considerable time and effort into creating an effective digital health and patient engagement strategy that supports MultiCare’s three core strategies:

1. **Performance excellence** in terms of offering a high-quality experience for patients, providers and staff;
2. **Population-based care** in terms of shifting from a **volume**-based to a **value**-based organization to improve healthcare quality while reducing costs;
3. **Expanding access to care and healthcare services.**

In response to growing patient expectations for convenient digital experiences with their providers, in 2021 MultiCare partnered with SeamlessMD, a leading Digital Care Journey platform, to digitally engage and monitor patients across a broad range of care journeys. The goal of implementing digital care journeys was to elevate the patient experience, improve clinical outcomes and lower costs.

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**Case Study**

Launches Digital Care Journeys to Reduce Length of Stay, Readmissions and Costs while Increasing Contribution Margins

**Key Results:**

- ↓ 0.38 days Average Length of Stay
- ↓ 37% 30-day Readmissions
- ↓ 39% 90-day Readmissions
- ↓ 6.7% Avg Total Cost
- ↑ 19.9% Avg Contribution Margin
- Rolled out to 5 clinical areas including: Hip, Knee, Spine, Bariatrics, and Maternity Care

“**What we found to be probably the most valuable and the most standout in this relationship [with SeamlessMD] is the Epic integration between SeamlessMD and MultiCare’s instance of Epic, both on the provider side and on the patient side within MyChart. Using the SMART on FHIR integration via the App Orchard, providers really can monitor patients without leaving Epic.”**

Ben Chao, President CareConnect, MultiCare

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info@seamless.md
### Collaborating with SeamlessMD to Customize Digital Care Journeys

When implementing these evidence-based care plans, SeamlessMD worked with an interdisciplinary team at MultiCare to customize protocols and content on the platform, which enabled the care team to:

- Engage patients with a mobile and web-enabled virtual companion – guiding them from pre-admission preparation through post-discharge recovery;
- Deliver evidence-based pathways in the form of multimedia education, reminders and tasks;
- Monitor patient compliance, symptoms and recovery progress (e.g. knee range-of-motion, pain levels, incision photos, etc.);
- Efficiently collect Patient-Reported Outcomes (PROs);
- Automate patient self-care guidance via smart algorithms and workflows (e.g. education for how to manage low-risk issues or when to escalate to a provider);
- Receive alerts and monitor dashboards to identify when a patient’s health status changes, enabling the care team to intervene sooner.

<table>
<thead>
<tr>
<th>MultiCare’s Decision Criteria</th>
<th>Why SeamlessMD?</th>
</tr>
</thead>
</table>
| Epic integration              | • Available on Epic App Orchard, deep experience with Epic & MyChart integrations  
                                 • Multimodal patient notifications (MyChart, e-mail, SMS) |
| Clinical evidence & proven ability to improve outcomes | • 30+ clinical studies & evaluations for reducing length of stay, readmissions, ED visits, costs, etc. |
| Robust clinical content       | • Out-of-the box, evidence-based digital care plans that are customizable by clinical teams (review & approve)  
                                 • Meets guidelines for health literacy & accessibility |
| Experience with multiple specialties | • Supports wide range of surgeries, oncology, maternity care, chronic care, and more |
| Overall cost of technical ownership | • Low due to high-touch service partnership, including dedicated Customer Success Managers, Patient Education Specialists, and other resources |
A Fully Epic EHR-Integrated Experience

To streamline the user experience, MultiCare leveraged SeamlessMD’s turn-key Epic integration from Epic’s App Orchard. This allowed MultiCare staff to:

- Easily access SeamlessMD dashboards within Epic
- Enroll patients into SeamlessMD from the Epic patient chart;
- Access SeamlessMD dashboards for remote patient monitoring directly from within Epic; and
- Receive alerts for patients at-risk via In Basket messages.

Improving Patient Engagement and Satisfaction

The platform equips patients with the tools to effectively self-manage from home, empowering individuals to more actively participate in their own healthcare. That is, the platform provides just-in-time reminders, evidence-based educational content, and automated feedback on how to manage issues patients would otherwise frequently call about. As a result, patients that are actively engaged on SeamlessMD feel less anxious and more connected to their care team throughout their care journey. Here’s what Multicare’s patients like most about the program:

“I think this was a brilliant idea. When you've had major surgery, you don't really know what you should be feeling from day to day and it's comforting to feel like you're touching base with your care team without feeling like a nuisance by calling too often.”

“It gave you confidence that even though you were home, you were still being monitored and cared for. Any questions or concerns could be addressed with an immediate response or solution.”

“Since I live 80 miles from my surgical team, I could relay my progress without commuting to the office.”
## Clinical and Operational Outcomes Improved with SeamlessMD

### 1. Total Hip and Knee Replacement Clinical Outcomes Analysis

<table>
<thead>
<tr>
<th>Factor</th>
<th>Control</th>
<th>SeamlessMD</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>241</td>
<td>176</td>
<td>--</td>
</tr>
<tr>
<td>Average LOS</td>
<td>1.50 days</td>
<td>1.12 days</td>
<td>↓ 0.38 days</td>
</tr>
<tr>
<td>30-Day Readmissions</td>
<td>9.1% (22/241)</td>
<td>5.6% (10/176)</td>
<td>↓ 37%</td>
</tr>
<tr>
<td>90-Day Readmissions</td>
<td>11.2% (27/241)</td>
<td>6.8% (12/176)</td>
<td>↓ 39%</td>
</tr>
</tbody>
</table>

### 2. Total Hip and Knee Cost Analysis

<table>
<thead>
<tr>
<th>Factor</th>
<th>Control</th>
<th>SeamlessMD</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>219</td>
<td>144</td>
<td>--</td>
</tr>
<tr>
<td>Average Age</td>
<td>66</td>
<td>66</td>
<td>--</td>
</tr>
<tr>
<td>Avg. Total Cost</td>
<td>$17,364.05</td>
<td>$16,209.28</td>
<td>↓ 6.7%</td>
</tr>
<tr>
<td>Avg. Labor Costs</td>
<td>$6,921.16</td>
<td>$6,127.99</td>
<td>↓ 11.5%</td>
</tr>
<tr>
<td>Avg. Contribution Margin</td>
<td>$7,027.48</td>
<td>$8,425.01</td>
<td>↑ 19.9%</td>
</tr>
</tbody>
</table>

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**Just-in-time reminders**

**Monitor symptoms, progress & PROs**

**Automated self-care guidance**