

Empowering the Cancer Patient Journey with AI-Driven Education

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Radiation oncologist Adam Raben, MD, knows what it's like to give a patient a cancer diagnosis. He also sees what it's like for patients to receive such devastating news.

"The initial diagnosis is basically like a frying pan hitting you in the face," says Dr. Raben, chairman of the radiation oncology department at ChristianaCare, the largest health care system in Delaware. Indeed, the ability of most patients to process virtually everything he says after that moment essentially plummets.

"No matter what you do, they're nervous, they're stressed out, they're not listening very well," he observes, adding that that reality created a persistent hurdle for him and his team.

Despite its high-volume, world-class cancer center, ChristianaCare's patient surveys frequently revealed a troubling trend. Patients were reporting that they didn't fully understand their treatment, its side effects, or the "fire hose" of information provided during consultations.

Dr. Raben says they attempted to bridge this gap with traditional tools such as brochures and a library of legacy videos from professional organizations like ASTRO. However, these resources were often a decade out of date or discussed treatment modalities not available at ChristianaCare.

Accountability was also nonexistent; there was no way to know if a patient actually watched a video or if they were "dozing off" in the waiting room while it played, he says.

The motivation for change was clear: ChristianaCare urgently needed a consistent, verifiable "teach-back" platform that could scale with their growing volume while combatting physician burnout. Their search led them to 5thPort, a startup based in Delaware.

The Architecture of Connection: What is 5thPort?

Founded in 2017, 5thPort was born out of a collaboration between Rob Berube, DDS, a maxillofacial surgeon who had used video education for decades, and Navroze Eduljee, a technology expert from the financial services sector.

Eduljee argues that health care should mirror the personalization found in modern banking.

"[Health care takes] the buckshot approach to patient engagement," Eduljee says. "We needed to create the mindset that we can't treat every patient as if they're the same as everyone else. We have to understand and personalize this journey for them."

The company's name reflects its foundational philosophy. Eduljee

explains that the original concept featured a diagram with four hexagons representing key stakeholders: patients, providers, health care organizations, and insurers. In the center they placed an additional hexagon — the "fifth port" — reflecting the company's goal to tie all stakeholders together through shared, verified information.

Operating as a lean organization that is privately funded by Berube and Eduljee's technology services company, DecisiveEdge, 5thPort leverages fractional resources to remain agile, allowing it to rapidly iterate its technology based on direct clinical feedback, he says.

Implementing Hyper-Personalized Education

Through its partnership with 5thPort, ChristianaCare moved beyond providing patients with generic education to hyper-personalized content. Using 5thPort's AI-driven platform, the radiation department created digital avatars and voice clones of their actual treating physicians. Instead of a stranger on a screen, a patient receives a link via text or email and sees their own doctor — such as Dr. Raben — explaining their specific disease and treatment.

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The workflow is designed to follow the patient throughout the treatment journey:

- **Pre-Consult:** Patients receive an overview video intended to lower their stress levels before they ever step into the clinic.
- **Modality-Specific:** Once a treatment plan is chosen (eg, brachytherapy), a focused video explains exactly what to expect.
- **Teach-Back Verification:** Each video is followed by four or five multiple-choice questions written at a 6th-to-8th-grade level. The system automatically timestamps patient completion of the quiz, identifying specific gaps in understanding before face-to-face meetings with their physician.

Results: Efficiency and Engagement

The impact on clinical operations has been, in Dr. Raben's words, “massive.” Prior to implementing the system, he says, few patients truly understood the information they were given, despite spending

an hour or so with him as he explained their case.

“But thanks to 5thPort's platform, patient compliance with the department's “teach-back” requirement has jumped from an inconsistent 30%-40% to a verified 100%, according to Dr. Raben. For the clinical staff, the benefits are measured in time and morale. By ensuring patients arrive informed, Dr. Raben has seen his time in the exam room reduced by as much as 50 percent.

“And it's not because I'm rushing,” he notes. “It's because we've packaged everything so well for the patient to feel focused.” Furthermore, the department has seen a significant drop in “panic” phone calls to nursing staff, as patients now have a digital reference for what constitutes a normal symptom versus a side effect requiring intervention.

Dr. Raben says the technology has also proven to be a powerful tool for health equity. By offering videos in 80 languages and using accessible language, ChristianaCare has increased

its minority patient accrual in prostate cancer clinical trials to four times the national average.

The Path Forward

As ChristianaCare looks to the future, their partnership with 5thPort continues to evolve. According to Eduljee, plans are underway to integrate controlled AI layers over the approved content, allowing patients to ask questions in real-time that are answered only by verified, hospital-approved data.

Ultimately, Dr. Raben asserts that his department's experience demonstrates that advanced technology does not have to come at the cost of the “personal touch.” Instead, by automating the repetitive elements of education, he and his fellow radiation oncologists can return to what they do best: provide high-level, focused care to patients who are now truly empowered participants in their own journey.

“We're not trying to replace us,” he says. “We're trying to augment us.”