



Case Study: How Pre-Consultation Digital Engagement Supported Patient Comprehension in a Radiation Oncology Department

PROBLEM STATEMENT

Across hospitals - including one hospital's radiation oncology department – patient understanding and satisfaction have been steadily declining despite ongoing refinements in education materials.

This leading radiation oncology department partnered with 5thPort to test whether pre-consultation AI avatar patient education videos of the physicians themselves, combined with teach-back, could improve communication, comprehension, and patient satisfaction.

APPROACH

With the help of the Radiation Oncology group, the 5thPort team designed digital pre-consultation engagements that patients received prior to their first visit. These engagements included developing:

- Patient education videos about their specific radiation treatment options and what they can expect during and after their treatments
- Multiple-choice teach-back quizzes to immediately measure patients' understanding of treatment options
- Analytics to track completion, accuracy and viewing behavior

The engagements incorporated traditional and AI Avatar patient education videos. The traditional videos were sourced from ASTRO's library of educational content. The AI-avatar videos, were created by the 5thPort video content creative team.

The avatar format allowed patients to meet and hear directly from their own doctor, while also giving the healthcare teams the ability to update scripts quickly, tailor visuals to each workflow, and deploy content in multiple languages or branded formats as needed.

RESULTS

Pre-consultation digital engagements were delivered to 956 consecutive patients within the radiation oncology department. Patients were assigned sequentially, with the first cohort receiving standard ASTRO videos and the second cohort receiving physician-specific AI-avatar videos.

Of the 956 patients who were sent a digital engagement:

- 867 patients (91%) completed the video and survey engagement

- Completion challenges were more common among older patients, though many older individuals successfully participated

Patient-reported survey scores were high for patients who viewed standard ASTRO videos. When physician-specific AI-avatar videos were introduced, mean survey scores increased across key measures, including:

- Patient Understanding: 4.64 (AI-avatar) vs. 4.49 (ASTRO)
- Video Empowerment: 4.65 (AI-avatar) vs. 4.44 (ASTRO)

Internal analysis demonstrated statistically significant differences between the AI-avatar cohort and the ASTRO video cohort.

Qualitative patient feedback further indicated that many participants valued seeing their treating physician prior to their in-person consultation.

CONCLUSION

Together, these results demonstrate that pre-consultation digital engagements (especially those using AI-avatar videos with embedded teach-back) create measurable value for both patients and providers. Patients arrive to their consultations more informed and confident, while physicians gain valuable time back for meaningful, higher-level discussions.

By making education more personalized, consistent, and scalable, this model redefines how oncology departments prepare patients for treatment.

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