

HOW IS TECHNOLOGY AFFECTING PATIENT ENGAGEMENT?



Virtual patient education, online portals, and AI are transforming patient engagement and enabling better care.

BY WILLIAM B. RABOURN JR

Interactions with patients take many forms, from conversations with the front desk staff to personal consultations with the doctor to surgery. Patient engagement is at the heart of health care.

Emerging technologies are changing patient engagement. Tools such as virtual patient education, online patient portals, and AI offer ways for ophthalmologists to interact with and serve their patients more effectively. Though distinct, these technologies often combine to streamline practice operations and empower patients to make informed decisions about their health care.

This article presents examples of how these tools are changing patient engagement.

VIRTUAL PATIENT EDUCATION Enhancing Patient Engagement Through Virtual Patient Education

The COVID-19 pandemic demonstrated the effectiveness and efficiency of digital communication technologies. As a result, many practices have begun to rely more on digital channels to educate patients about their conditions or upcoming procedures. Known as *virtual patient education*, this approach is helping many practices better engage patients in their care.

With the popularity of social media, videos are an effective medium for explaining complex topics, especially surgeries such as cataract removal, LASIK, and lens replacement. Videos can also be used to describe eye conditions,

provide instructions on treatment plans and pre- and postoperative care, and educate patients about what to expect on the day of their procedure.

Advantages of Digital Distribution

Digital media can be distributed more easily than print literature. For example, videos can reside permanently on a practice's website, be emailed to patients, or be placed on the practice's YouTube channel and other social media platforms, depending on the subject.

Creating Customized Video Content

Video content can be produced in a few different ways:

- **Third-party educational videos.** Several companies produce ophthalmic-specific educational videos that can be purchased and used on the practice's digital channels.
- **Custom-made videos.** A customized video can be made with help from a marketing agency that specializes in ophthalmology.
- **In-house productions.** Many doctors create their own videos on a variety of topics using mobile phones or other recording equipment.

Videoconferencing as a Supplement

Another digital tool that can supplement patient care is videoconferencing. This is helpful for patients in remote areas and those whose physical disabilities make visiting in person difficult. Videoconferencing can be used for appointments that do not require a physical examination. This

offering can increase patient adherence to treatment plans because there is less hassle associated with care.

ONLINE PATIENT PORTALS Features and Functionality

Online patient portals are secure, password-protected digital spaces that provide patients with access to a variety of information regarding their care at a practice or clinic. They can access their medical records to review information on past visits, treatment plans, and test results; access videos and articles that explain surgical procedures and treatments; and pay bills, schedule appointments, and ask brief questions without having to make a phone call or visit the practice in person.

Benefits for Patients and Practices

Patient portals have been shown to increase patient satisfaction. These tools provide a way to communicate effectively with the practice, help patients better understand their treatment, encourage them to become more involved in their care, and enable them to make informed decisions about the type of care they receive.

Future Enhancements

Some future ways patient portals could be used include the following:

- Telehealth integration for remote consultations and follow-up visits;
- Wearable device integration to monitor different parameters and identify problems early; and

- AI-generated personalized recommendations based on patient data and preferences.

Artificial Intelligence

Since ChatGPT (OpenAI) and Gemini (Google) were introduced nearly 2 years ago, AI has become a hot topic in almost every industry. Ophthalmology is no exception.

Customizing Treatment Plans

Because AI is a process—a way of gathering and analyzing data and then drawing conclusions based on those data—it has the potential to affect many areas in ophthalmology. Potential benefits include customized treatment plans based on the patient's medical history, genetic information, and lifestyle; predicting disease progression and possible complications; and early detection that allows more timely intervention to prevent permanent damage.

Integration with Patient Engagement Tools

AI can be integrated into other tools such as telemedicine and patient portals in the form of virtual assistants to provide the following:

- **Administrative support.** The technology may be used to schedule appointments and verify insurance coverage.
- **Patient education.** A virtual assistant can provide individualized answers to questions and explain upcoming procedures.
- **Content creation.** AI may be able to create videos or graphics to illustrate how procedures work.

All of these potential applications could greatly affect how doctors communicate with and provide care to their patients.

EMBRACING THE FUTURE OF PATIENT ENGAGEMENT

There are many ways technology can affect patient engagement and help ophthalmologists provide better care. It is important to remember, however, that technology is a tool that should enhance interactions with patients and better inform them about all aspects of the treatment they receive. Technology is not a replacement for personal contact or the experience and expertise of doctors.

None of the technologies in this article has been fully developed. The good news is that many patients are becoming more familiar with their use in health care. The extent to which these tools should be adopted, however, depends on what works best for a given practice and its patients. ■

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