Oral Chemotherapy Education: Using Innovation to Ensure Broad Access

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The purpose of this article is to share one institution’s intervention to improve oral chemotherapy patient education. The overall aim was to provide clinicians with a single source of educational materials that would meet a diverse group of patients’ educational needs and be consistent with published guidelines.

At a Glance
- Have a consistent message when standardizing educational materials across a large academic institutional setting.
- Social media is an innovative platform to distribute patient educational materials.
- An animated audiovisual is a cost-effective method of producing patient education.

Three critical components are a part of any comprehensive safety initiative: education, monitoring, and follow-up (Weingart et al., 2008). The patient safety initiative for OACs at the authors’ institution included the improvement of patient educational materials. In an assessment of the organization’s educational materials, only one teaching sheet was found that focused on oral chemotherapy. The content was comprehensive, but the message was too complex for the general population. On this teaching sheet, the information on safe handling of medications and bodily waste was overwhelming, leaving patients with more questions than answers. Although clinicians could print the sheet from the organization’s internal website, this practice was underused. In response to these concerns, representatives from the departments of Patient Education, Quality Improvement, and Communications formed a task force to include nurses, pharmacists, and patients experienced with OACs.

Planning and implementing patient education requires knowledge of the special needs of the population and knowledge of adult learning principles (Best, 2001). The authors’ organization treats a moderately diverse population of adult patients with different learning styles, literacy levels, health beliefs, and cultural values. After a review of patients’ unique needs and readiness to learn, the group determined OAC educational materials should be available not just internally, but also on the organization’s public website. The intent was to increase patient and family access to materials in an effort to increase understanding and adherence to OACs.

the number of promising and effective oral chemotherapeutic agents available in clinical trials and as standard therapy continues to increase rapidly in cancer treatment. Although patients find that taking a pill is less burdensome than traveling to a clinical setting for IV medications, oral treatments place additional burdens for safety and adherence on patients and their caregivers. Educational materials for safe and effective administration of oral chemotherapy do not often cover all the unique topics or address the diverse learning needs of patients who have been prescribed these medications. As the use of oral agents for cancer (OACs) continues to rise, so too does the complexity in administration and the risk for life-threatening consequences associated with errors in administration and adherence. The more complex the OAC regimen, the greater the potential for error (Moore & Brandt, 2010). In response to the 2014 Institute for Safe Medication Practices (ISMP) report on a patient death from taking a three-month supply of oral lomustine (Ceenu®) in one month, healthcare institutions are expanding patient safety initiatives to include OAC risk factors (ISMP, 2014).
The authors’ assessment also revealed that patients received in-depth education from their clinicians but lacked the ability to receive supportive information in multiple modalities to reinforce key safety instructions. Although written text is still the foundation for patient educational materials, research has shown that an audiovisual is also an effective method for patient teaching because it incorporates a visual presentation of information. Using pictures and relying less on text to convey a message can have a long-lasting impression and often reach a lower literacy level (Anzaku, 2011). This can be an effective strategy to consider when a message is complex and difficult to present at a fifth-grade reading level.

Informed by preplanning discussions, the overall aim was to provide clinicians with educational materials that would meet diverse patient educational needs, be consistent with the American Society of Clinical Oncology/Oncology Nursing Society (ASCO/ONS) guidelines (Neuss et al., 2013), and bolster baseline materials with the following enhancements: (a) standardized evidence-based printed educational materials, (b) the creation of an oral chemotherapy website, and (c) the development of an audiovisual education resource.

Measures

After developing new educational materials and improving accessibility, success would be measured by the number of views of teaching sheets on the internal website, the number of views of the oral chemotherapy external website, and the unique views of the four teaching videos on the external website.

Interventions

During a seven-month period, the team used the following message to help promote the initiative: “Oral chemotherapy, it’s not just any pill; it is a serious drug that requires special precautions.” The team revised the oral chemotherapy teaching sheet to ensure current and best evidence from ASCO/ONS (Neuss et al., 2013). The teaching sheet was electronically merged with each specific OAC sheet in the network database. On the organization’s external website, a new OAC webpage included general content from the oral chemotherapy teaching sheets, drug diaries, and additional links to relevant educational content. The availability of materials on the external website allows patients to review and share with family or friends as needed.

Finally, the authors created four short video vignettes with a local production company with animation experience. Funding was obtained from an internal source to defray the production costs. By combining information from the ASCO/ONS guidelines, clinical expertise, and patient experiences, the team developed four videos that were each about one minute in length:

- What is oral chemotherapy?
- How to handle oral chemotherapy therapy safely in the home
- How to remember to take oral chemotherapy
- Management symptoms and side effects

These videos are embedded in the organization’s oral chemotherapy website, www.Dana-Farber.org/oralchemo.

The use of storyboards helped develop the content, but the message came to life with the patient experiences and an engaging main character. The authors wanted to create a character who was culturally agnostic, gender neutral, and ethnically appealing to as many people as possible. The stick figure neutralized demographic barriers, allowing the authors to individualize learning to a broad audience. The stick figure represents the real-life experiences of patients managing busy lives while trying to adhere to OACs.

During planning, numerous patients requested a clear definition of oral chemotherapy, which became the framework for the “What is oral chemotherapy?” video. To date, that video has the greatest number of views.

Outcomes

The authors’ three aims were successfully achieved. Following the launch of the oral chemotherapy website, the views of the teaching materials and videos increased. One of the most interesting findings was the social media views of the animated videos. Through the assistance of the institution’s marketing department, the website and materials were pushed out through multiple social media outlets (see Figure 1). Given the worldwide popularity of Facebook, it was not surprising that the largest dissemination of materials was through that platform. A significant spike of about 1,300 hits occurred in the first month during the initial media push. Since then, consistent, regular access to the site has been achieved, with about 700 hits per month during the seven-month period. Oncology nurses should consider social media as a venue to educate the patient and family network.

Regarding cost, a previous experience with creating just one live-action video at the authors’ institution cost upwards of $50,000 and took about 10 months to produce. When using animation, the four videos were developed in three months.
for $8,000. Because the development of the videos was cost effective, the authors were able to have them made available in five languages (English, Spanish, Russian, Portuguese, and Arabic) and they have been viewed in 25 countries.

Discussion

The authors’ outcomes demonstrated a need for OAC educational materials. Often, audiovisual material is overlooked because it can be time consuming and expensive to produce (French, Mackenzie, & Samant, 1999). However, animated audiovisuals are an innovative and cost-effective alternative with many advantages for providing effective education for patients with cancer.

Oncology nurses work with patients on OACs in many settings. They often are on the front line, reinforcing education about safe administration and handling of OACs. Having accessible educational materials with a clear and standardized message is an important tool to support patient safety and adherence in large, complex health organizations.

Limitations

Although the project was successful, a few limitations are worth noting. Given the complicated content of OAC safety information and instructions, it was challenging to educate adequately within the time constraints of a brief video vignette; therefore, the authors limited the scope of the content. In addition, although the authors demonstrated that education could be provided by using these modalities, an effective method to measure patients’ understanding or whether their understanding reduced medication administration errors was nonexistent.

Next Steps

The authors plan to complete a patient-focused telephone survey to determine if the videos have improved patients’ understanding of oral chemotherapy risks, safety, and management. Because the development of these videos was inexpensive and appears to be an attractive method for patient education, the authors are exploring other possible cancer education methods.

Conclusion

When traditional printed materials are combined with an audiovisual modality available in multiple languages on a web-based platform, the message can reach a broad audience through social media. The use of social media to communicate patient education information is an opportunity for oncology nurses to use with their patients. Many patients are now part of a broad network of family, friends, and others that communicate with the patient on a regular basis via social media. The use of social media is a novel way for oncology nurses to enhance patient education and impact cancer care.

References


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