Using images to enhance patient education

Kristin Foster, BAA
Graphic Artist, Patient & Family Education Program, University Health Network, Toronto, Ontario, Canada

Introduction
The Patient & Family Education Program at the University Health Network (UHN) ensures patients and families have the right information at the right time. Patients in our acute care, cancer care and rehab settings need reliable information that is easy to understand; and one approach that we use to address this need is the use of images. Research shows that using images to enhance oral and written instructions increases attention, comprehension, recall and adherence. However, images that are used incorrectly or in the wrong context are not as effective.

Introduction
To achieve the best results:

• Images must match the accompanying text. If the image and content are not directly related, it can be confusing and distracting to patients.

• Images should be simple and direct. If they are too complex then the meaning may be lost.

• Images must be relevant and culturally appropriate. For example, illustrations depicting seniors as frail and unhappy are not appreciated by our senior audience. To address issues of gender, we avoid depicting very feminine or very masculine figures for illustrations in which sex is not important.

The UHN Patient & Family Education graphic artist works with healthcare providers across the hospital to create images that address the needs of different patient populations. Through this collaborative process we address communication barriers associated with low health literacy.

Impact
Each image can have a different educational impact, depending on how it is used and where the patient is along the continuum of care. Since the images are created in-house, the copyright is retained and the images can be reused or modified for different applications. Whether it is in-hospital teaching or a take-home handout, the effective use of images in conjunction with plain language helps patients and their families to be partners in their care. The following examples on the right show how the images created at UHN have impacted our patients.

Next steps
The Patient & Family Education Program is in the process of implementing a patient education resource policy. Once approved, any clinician wishing to create resources for patients will be required to consider the visual component of learning when developing resources for patients. The policy will identify as best practice the combined use of plain language and visuals to address issues related to low health literacy. In addition, we will maintain standards of accessibility in design. We will ensure we are meeting the needs of as many patients as possible and giving them the skills to be involved in their care.

This part of your brain helps you:

1. Challenge: Clinical educators needed a way to teach patients about the effects of having a stroke.
2. Solution: A poster was created to illustrate the functional areas of the brain. Clear labels in plain language describe each area, and colours are used to differentiate the lobes of the brain.

3. Challenge: Patients used the poster to explain to their families what changes they are experiencing as a result of their stroke. The functional and multiple uses of the poster allow patients to actively take part in understanding their health condition.

4. Challenge: A group of physiotherapists and occupational therapists needed a tool to help our senior patient population prevent falls at home and in the community.
5. Solution: The group identified guidelines to prevent falls in each area of the home, such as the stairs, bathroom and kitchen. Simple images were created of each room to show visually how to prevent falls.

6. Challenge: How is it benefiting patients? Physiotherapists and occupational therapists now use the poster whenever their patients have questions relating to legs or knee. It is used to demonstrate anatomy, differences before and after surgery, and knee pain.

7. Challenge: A group of radiation therapists needed a way to explain the position of the heart and breast during radiation treatment teaching. Shown was an X-ray of the heart to show where the heart is located and how the therapist positions the patient to ensure the heart is clearly visible and prevent radiation being delivered to the heart.
8. Solution: An image was created to show the proximity of the heart and breast during radiation treatment. The image was used in radiation treatment teaching and patient education.

9. Challenge: How is it benefiting patients? Patients used the poster to easily understand the information.

10. Challenge: How is it benefiting patients? The group found that using a breathing coordinator is useful for patients who are difficult to breathe. The breathing coordinator is used for patients with chronic obstructive pulmonary disease (COPD) and asthma.

11. Solution: The pillow is now used in radiation treatment teaching to help patients see the space that is created when the therapist positions the patient for treatment.

12. Challenge: How is it benefiting patients? The image is now a standard of best practice. Patients are more easily understood why the breathing coordinator is used and how it impacts their safety.