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# Development of PET/CT and PET/MRI Patient-Information Videos in Collaboration with Patients Previously Treated for Cancer

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For patients, undergoing PET/MRI and PET/CT carries a psychologic burden that may be lessened by effective education beforehand. We devised an online resource to explain the imaging process to patients before they undergo PET/MRI or PET/CT. **Methods:** We produced 2 patient-information videos explaining the journey of the patient through the process of undergoing PET scanning. Actual patients were recruited to review the style and content of the videos at each stage of their production, as well as the finished product. **Results:** The 2 videos were produced and reviewed, and positive feedback was obtained both from the patients and from health-care providers. **Conclusion:** Involvement of patients in the production of the informational videos had a positive impact on the finished product and its potential benefit.

**Key Words:** general oncology; PET/CT; PET/MRI; public and patient involvement (PPI); YouTube; patient-information video

**J Nucl Med Technol 2018; 46:26–28**  
DOI: 10.2967/jnmt.117.198770

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**F**or patients, being scanned with PET/MRI or PET/CT carries with it the potential for anxiety, discomfort, or embarrassment, which may contribute to the overall level of psychologic burden (1). However, previous experience with scanning, or knowledge about the procedure, may allay this burden (2), and patient education before MRI has been shown to reduce anxiety (3).

In line with the findings of a previous study (4), the effect of a preparatory video before colonoscopy (5), and increased use of the Internet by people in search of health information, we formed the concept of creating

patient-information videos for viewing online before PET/CT or PET/MRI. The aim of the videos was to orient patients to the scanning department, increase their familiarity with the procedures, and address their questions. Here, we describe our method of creating these videos, and we report feedback from patients on the final products.

## MATERIALS AND METHODS

The method of creating and reviewing the videos is summarized in Figure 1.

We sought the unique perspective of patients previously scanned with PET/CT or PET/MRI for cancer at University College London Hospitals Trust (6,7). A working panel was convened consisting of 5 such patients along with 2 research radiographers, a research nurse, a filmmaker, and an operations manager. The patients were part of a preexisting group of volunteers who assist our institution by reviewing potential projects and documentation for accessibility, or “usability,” by the public. The patient volunteers were not currently under medical care at the hospital. Because this work was conducted as part of service development, rather than research, no ethical approval was sought.

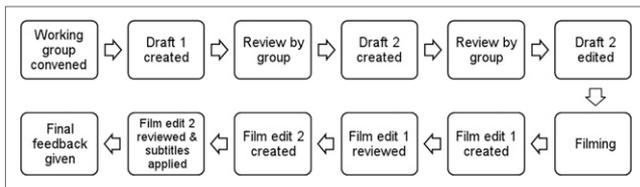
First, still photographs showing various stages of the preparation and scanning processes for PET/CT and PET/MRI were reviewed by the patients. Then, these photographs were combined into 2 videos with scripts that had been approved by the department, the footage was edited, and the videos were reviewed by both the panel and the department. Finally, after a last edit, the videos were reviewed once more by the patients.

## RESULTS

Prefilming feedback indicated several aspects of the video needing improvement: there was the need to emphasize continuity of care by showing interactions between patient and radiographer, the need to show that the scanners are open at both ends, the need to indicate that there will be scanning noise, and the need to show the types of comfort aids that will be available. It was also at this stage that feedback indicated the need for 2 separate videos, one on PET/CT

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Received Jul. 5, 2017; revision accepted Sep. 26, 2017.  
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Published online Oct. 17, 2017.  
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**FIGURE 1.** Flow diagram illustrating process of creating video.

and the other on PET/MRI, to reduce confusion; a new script was written for each.

Postfilming feedback indicated the need to show healthcare professionals performing their scanner-related duties, such as putting the patient on the scanner, performing the scan, and reviewing the resultant images (Fig. 2). Postfilming feedback also indicated a need to refine the tempo, language, and field of view.

Final-product feedback was very positive, indicating only the need to add English subtitles for individuals with impaired hearing. This positive feedback was collated and is reported in Figure 3.

## DISCUSSION

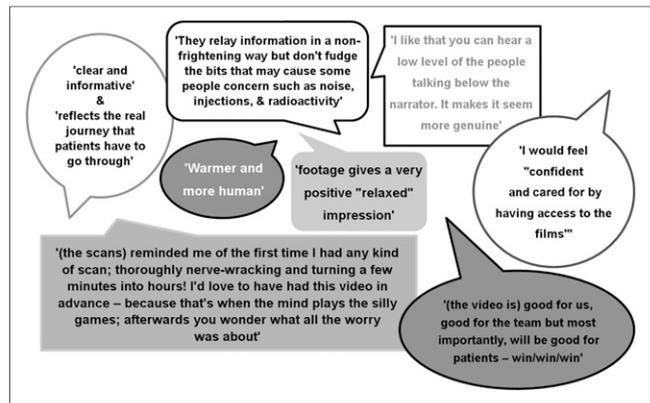
Feedback from the patients was positive. They considered that the work and effort invested had succeeded in creating a useful tool to help people who are facing not only a potentially serious disease but also a scan that they have never experienced before.

Additionally, the patients indicated that their involvement was rewarding because their comments were taken seriously and were genuinely sought. Specifically, one patient commented “that the process did not pay lip-service to patient and public engagement; which could have been an easy trap for the team to fall into.”

The videos are posted on our institutional and departmental sites and include subtitles in 11 languages. In patients with early stages of dementia, second-language skills are some of the first to diminish. Therefore, translated subtitles may significantly help dementia



**FIGURE 2.** Example of PET/MR image shown to demonstrate resultant images in informational video.



**FIGURE 3.** Feedback of patient panel on final versions of videos.

patients undergoing imaging, a rapidly developing field for PET/MRI.

## CONCLUSION

Through extensive consultation with previous cancer patients, we created a patient-information resource to alleviate specific concerns of patients undergoing PET/CT and PET/MRI. The task now is to evaluate whether this resource alleviates patients’ psychologic burden and, if so, distribute it as widely as possible to achieve the greatest benefit.

## DISCLOSURE

Financial support was received from the Biomedical Research Centre, University College London Hospital, National Institute for Health Research. Pierpaolo Inga is a commercial filmmaker whose services were retained for the purposes of this project. He worked closely with the patient members of the working group to ensure their input was incorporated. No other potential conflict of interest relevant to this article was reported.

## ACKNOWLEDGMENTS

We thank Jessica Skippon, Terry Emery, Maria Kacandes-Kamil, Debby Lennard, and Elizabeth Lloyd-Dehler for serving on the patient panel, as well as Libby Knowles, Victoria Moseley, James Fortune, Deena Neriman, Raymond Endozo, Gabrielle Azzopardi, Maria Machado, Marie Meagher, McKenna Roberts, and Priya Jeyanithi for helping with production of the videos. We also thank the Biomedical Research Centre, University College London Hospital, National Institute for Health Research, for their financial as well as logistical support; Phillip Brading, Professor Peter Ell, and the Governors of the University College London Hospital Charity for facilitating further financial support; and the Centre for Nurse and Midwife Led Research, University College London Hospital, for their continuing academic support and advice.

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