



# Active relaxation in the uptake room

## Transforming the oncology environment with Ambient Experience

Ambient Experience harnesses technology to ease anxiety, improve workflow, and generally support the healthcare experience for patients, families, and staff. Nowhere is this type of solution more appropriate than in the world of oncology.

Diagnostic imaging procedures involving the uptake of radiological agents offer an excellent application of the Ambient Experience solution. For patients who are scheduled to undergo a PET/CT exam, for example, the anticipation of a diagnosis can be intensely stressful. After injection, they are left alone in the uptake room, a time that is often characterized by anxiety and uncertainty.

### Key advantages

- Reduces patient anxiety
- Improves staff satisfaction
- Supports clinical workflow
- Differentiates your institution

# PHILIPS

Our Ambient Experience uptake room solution is designed to help patients achieve a sustained sense of calm during the course of the procedure and to facilitate excellent clinical conditions and staff workflow. It transforms a standard uptake room into a specialized environment that assists with each procedural step.

Embraced by a customized, calming ambiance that fosters relaxation, anxiety can be reduced and patients may relax. Clinicians also benefit from an environment that fully supports their tasks. The enhanced patient experience is an important service differentiator for your institution – and a motivational factor for staff.

### Addressing the need

Philips Ambient Experience uptake room solution is designed to assist by transforming the physical space. A stylish ceiling unit generates procedure-specific audiovisual scenarios, including practical procedural lighting and audio settings for an excellent staff work environment. The unit also contains specific task lighting to facilitate injection of a radiopharmaceutical agent such as FDG\*.

Patient-focused, active relaxation video content and associated colored light settings promote relaxation to reduce anxiety. Before entering the uptake room, patients may select one visual theme from among many. The act of choosing a theme they prefer instills a critical sense of control and may help to allay tension.

\* FDG: Fluorodeoxyglucose is a radiopharmaceutical agent used in the medical imaging modality positron emission tomography (PET).

### Tailored to the uptake process

We have studied the physiological reaction of patients to the uptake procedure over the course of time and have identified phases of the process for which we can apply a unique Ambient Experience solution, thereby facilitating a smooth workflow.

Together with the Netherlands Cancer Institute - Antoni van Leeuwenhoek (NKI-AVL) hospital in Amsterdam, scientists from Philips Research Laboratories conducted first-hand qualitative research<sup>1</sup> with regard to the patient's state of mind during this procedure. Although patients were asked to relax, the majority could not do so for long. Instead, physical and mental anxiety tended to increase.

Investigators found in this study that, by offering distraction through audiovisual intervention, many patients were able to relax more.

<sup>1</sup> Intervention to Lower Anxiety of 18F-FDG PET/CT Patients by Use of Audiovisual Imagery During the Uptake Phase Before Imaging  
J. Nucl. Med. Technol. 2012 40:92-98 published ahead of print May 8, 2012.  
The specific lighting, visual and sound components tested in this study were in a prototype configuration that is not commercially available

### The Ambient Experience uptake room solution is designed to support the following stages:



#### 1. Welcome

Cove lighting produces a clean, white light, ideal for room setup and patient introduction.

#### 2. Waiting

As staff leaves the room, low-intensity, colored lighting is displayed and a preview of the patient's visual theme of choice is projected.

#### 3. Injection

The doctor enters the room and a dedicated task light is switched on to facilitate the injection.

#### 4. Uptake start

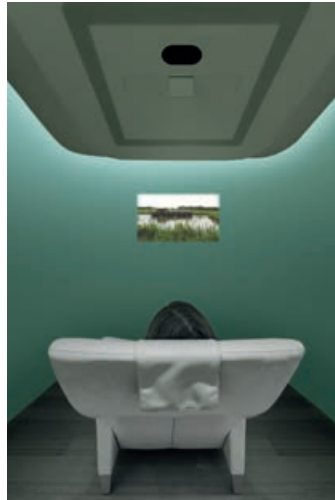
At the start of uptake, low light and low audio levels establish a sense of contemplative peacefulness.

#### 5. Relaxation

To counter a possible surge of anxiety and promote continued relaxation, the patient's selected visual theme is slowly introduced.

#### 6. Uptake finished

Patient is ready for the PET/CT exam.



Results: a feeling of calm and sense of control

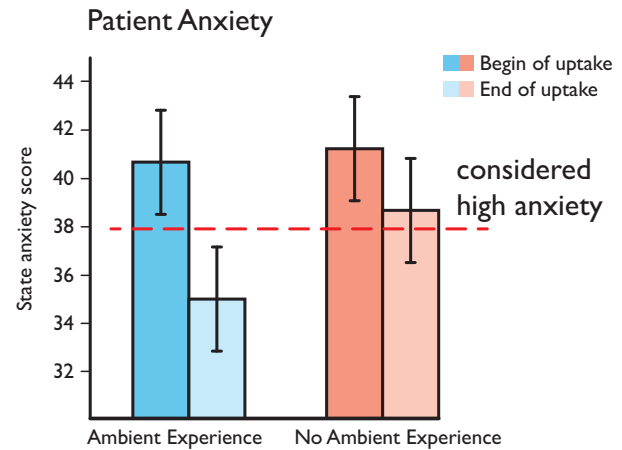
### A visual 'journey'

We've done extensive research to optimize the visual themes you can offer patients. Several factors have influenced our development of this part of the Ambient Experience.

- Studies show that, immediately following the FDG injection, patients manage to relax somewhat. Yet after 15 to 20 minutes they become restless. Relaxation is difficult during the balance of the time required for full uptake.
- A visual stimulus that engages and distracts patients from the procedure is critical. It is equally important, however, not to over-stimulate the patient. The size of the video display therefore remains modest.
- Initially the room is dimly lit with a 'preview' image projected to mitigate anticipation of the long wait time.
- A gradual introduction of the calming audiovisual theme begins after 20 minutes, to counter any mounting sense of anxiety.
- Patients appreciate the option to choose the visual theme if they wish to assume some control over the experience.
- Cancer patients and those who are awaiting a possible diagnosis of cancer prefer a visual journey without end – a journey that transports them away in a soothing, flowing experience of nature.

Patients can select from themes such as balloon rides over the colorful countryside or lazy boat trips down a gently flowing river to enhance their uptake room experience.

As part of the research at NKI-AVL hospital, fifty patients completed a self-assessment questionnaire following the procedure. The results demonstrate a significant reduction in patient anxiety when Ambient Experience is in place in the uptake room.



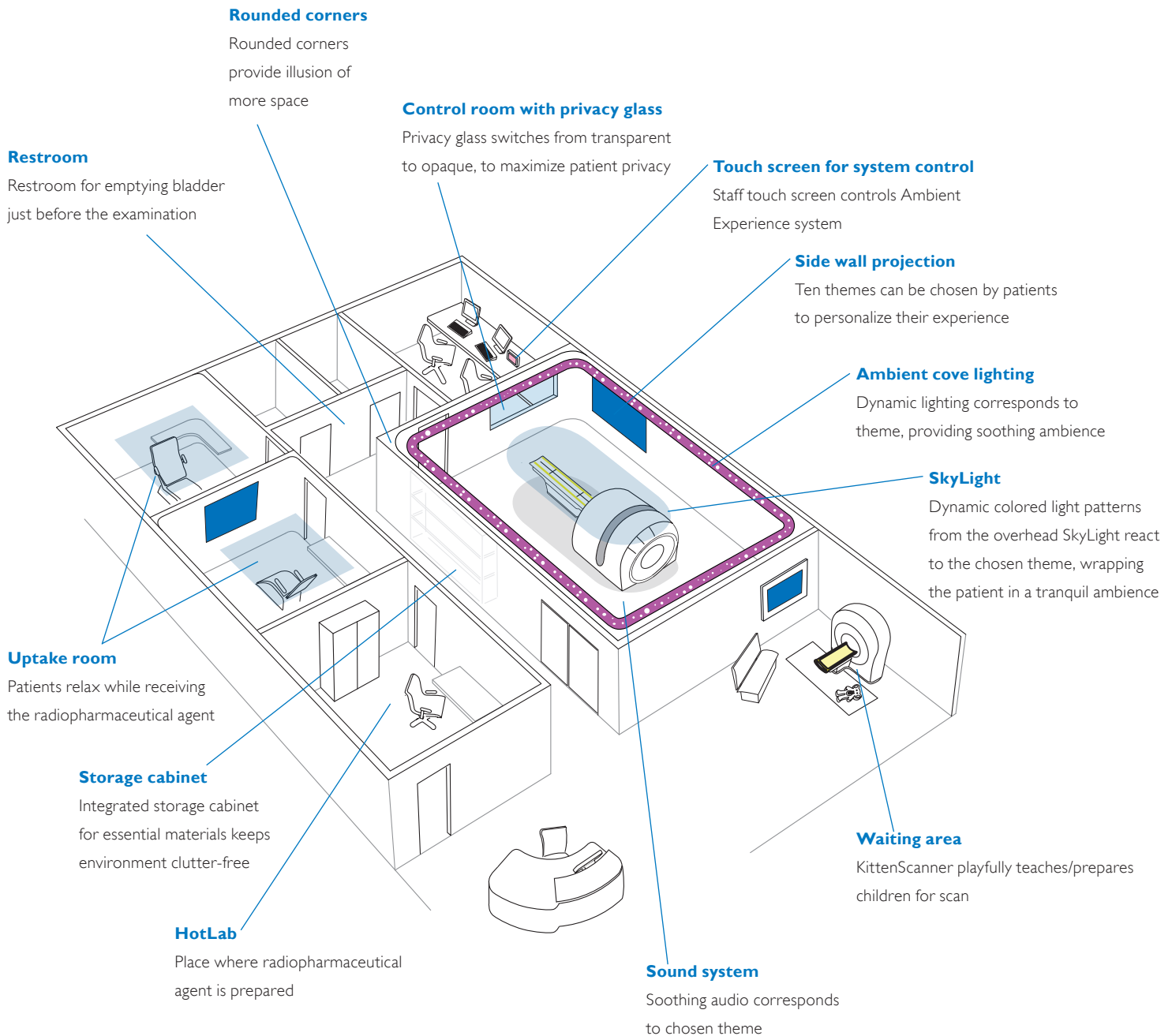
Ambient Experience gives your patients an opportunity to manage their anxiety. It puts your clinicians in control by improving procedural efficiency and patient compliance. And it conveys an attitude of 'well-being' with a focus on patient satisfaction that can become a differentiating factor for your hospital or cancer center.



Wouter V Vogel, MD, PhD,  
Nuclear Medicine physician,  
The Netherlands Cancer Institute

“My experience of the Ambient room is very positive. The largest benefit for me as a doctor is that the patient is very relaxed and that I have very good lighting of the arm of the patient when I want to do the FDG injection.”

# Core elements of Ambient Experience for PET/CT



Please visit [www.philips.com/AmbientExperience](http://www.philips.com/AmbientExperience)



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