



# Using iPads to Improve Patient Care

By Chris Alsip, MHA, RT(R)(CT) and Amanda Rich

In 2012, the radiology department at the Cincinnati Children's Hospital Medical Center was awarded the AHRA & Toshiba Putting Patients First grant. The grant funds were used to purchase 10 iPads and protective cases to start an iPad program. To kick off the iPad program, the radiology department created an educational presentation to share information about the grant and the intended use of the iPads with staff. This information included ways to use the iPads with children and families, the check-in/out process, and steps to monitor and protect the iPads from misuse or theft. Since the inception of the program over a year ago, we often hear staff comment, "What did we ever do without iPads?"

The primary goals of the iPad program were to improve the radiology patient experience, as well as decrease the need for sedation or anesthesia for radiology procedures. We service a large number of pediatric patients in our department for various procedures, including CT and MRI scans, x-ray imaging, nuclear medicine scans, ultrasound, and many others. Some of these procedures involve lengthy wait times during the test, require patients to remain very still, and some can be painful and invasive. The ability to have the Internet, applications for all ages, and many options for videos and television programs while completing a radiology procedure improved the overall patient experience and improved patient cooperation at the same time. We quickly experienced achievement of our goals upon implementing the use of iPads in the department.

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The iPads have directly contributed to a reduction in the percentage of patients who require sedation or anesthesia for their procedures. We experienced the largest decline in the 3–6 year age group where, since the introduction of iPads as a distraction device, we have reduced sedation by 38.7%. This has a tremendous impact on patient safety and also greatly increases patient and family satisfaction.

Voluntary surveys were conducted after using the iPads. To date, we have collected 46 responses. We asked three questions to gauge satisfaction:

- How did you and your child use the iPad in radiology today?
- On a scale of 1–5, how do you feel the iPad contributed to your child's coping during the radiology procedure?
- Does the availability of an iPad for your child and/or you increase your level of satisfaction with your radiology visit?

The results were impressive. On a scale of 1–5, 78.6% gave a score of 5, stating the iPad had a big impact in their child's ability to cope with the procedure. In addition, all 46 respondents said that the availability of an iPad increased the level of satisfaction with their radiology appointments.

The iPads are used in many different ways depending on the radiology modality and the details of the procedure. Patients need to remain still while getting a CT scan as the bed moves in and out of the camera. An iPad can be positioned above the bed and moved with the child so they can watch a visual application or show to complete the scan successfully and with less anxiety. This is accomplished with the use of a portable iPad stand. Many nuclear medicine scans can last an hour to several hours, and the patient is required to remain still during imaging. An iPad can be easily positioned above or near the patient to allow them to use their hands and manipulate the iPad during these lengthy procedures. In ultrasound, technologists use iPads to keep young children engaged in a TV show during transcranial doppler scans, which require children to hold their heads still while not sleeping. The iPad is more efficient than a TV due to the flexibility in positioning and the wide variety of videos that are instantly available.

Often in our radiology department, families are waiting for their appointments, sometimes longer than they may have anticipated. The iPads are great tools to help lessen anxiety and improve the families' experience of waiting. Families can use that time to search for

information about their child's medical diagnosis, respond to time sensitive emails, or distract their toddlers from remembering that they are hungry prior to a procedure with anesthesia.

Radiology has also utilized the iPads to improve efficiency and productivity. Staff use the iPads to do quick surveys and collect real time data. Joint Commission coaches use the iPads to conduct staff questionnaires and perform environmental rounds. The patient family advocate uses the EPIC application on the iPad to check patient appointment times and help our patients and families navigate throughout their confusing appointment schedule.

Radiology recently partnered with the Department of Diversity to pilot a new interpreter application on the iPads. The interpreter application has provided an invaluable tool for our staff and the patients we serve. Often times, a family will arrive for an appointment without a scheduled interpreter, or an uncommon language may lead to limited availability of interpreters. The ODI® (On Demand Interpreter) service provides us with a tool to easily access over 200 languages and offers a live face to face interpreter for the most common languages we encounter. This service has allowed us to seamlessly provide care for our patients without having to wait lengthy amounts of time for an interpreter. The feedback has been overwhelmingly positive from staff and the families and patients that have used the interpreter application during their visits.

In conclusion, the AHRA & Toshiba Putting Patients First grant has allowed us to do just that: put the patient first. With the grant, we have been able to improve patient care, safety, and satisfaction. Radiology has used the iPads to accomplish our goals, but we believe the possibilities are endless. We have proven the benefits of this tool and will be purchasing additional iPads to spread the use of this amazing resource. Without this grant, these accomplishments would not have been possible. 🌟

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