



# Case Study



## Pre-Procedure Patient Education

Interactive pre-procedure education tool increases patient knowledge, reduces patient anxiety and improves patient provider interaction. The surgery patient is understandably nervous. His medical background is typically based on what he's seen on ER and a friend's explanations. The physician has a waiting room full of more patients and the hospital's paging.

Sure the patient carries a list of questions and the physician is experienced in the surgical procedure, but the setting is a real challenge to the vital pre-procedure patient education.

Medical facilities have resolved this informed-consent dilemma with animated, multimedia and multi-technology vignettes from Vital Link.net in Bellevue, WA. The simple patient education and consent service, called VITAL Center, helps surgery candidates understand the medical procedure they'll undergo, optimizes a physician's limited patient time and improves the patient/physician relationship.



## Interactive Pre-Procedure Education Tool Increases Patient Knowledge VITAL Center Helps Surgery Candidates

Simultaneously, it ensures the physician he's met all informed consent regulations.

### Like Talking To Your TV

The process begins with the patient sitting before a 20-inch flat panel computer screen that uses animation to walk the patient through the entire process. The VITAL Center offers pre-procedure education on 170 different operations. Each one first asks for the patient's name and allergies, gives the indications for the procedure, shows the anatomy and physiology and explains verbally

and visually the operation. Possible complications are reviewed too. The patient is told what medications he or she will receive and what to expect after the surgery. Finally, anticipated results are explained as well as possible alternatives.

Such animation and live, multi-lingual narration on the screen "makes it easier and comforting" to the patient, says Kevin Ryan, manager of hardware development at Vital Link.

Explained one 66-year-old male patient, "Everything happened

just like the video showed. There weren't any surprises. I felt prepared for what was going to happen."

Patients determine the vignette's pace via visual buttons on the screen. When the patient is ready to move to the next explanation, he or she just touches the "Next" button on the flat-panel touch screen with a finger. The viewer also can select a pause or a back button. Patients can ask questions, picked up by a microphone, which are recorded and can later be played back and answered one-on-one by their physician. The physician is able to play back both the recording of the patient asking the question and what was on the screen at the time the question was asked, tying the question with the specific part of the operation being viewed.

Throughout the session the patient is given simple questions to answer. The questions are structured in a true/false/not certain format. At the end of the session, the doctor can view the questions the patient was unable to answer correctly. The doctor is then able to clarify these questions with the patient and assure understanding. Once the medical procedure is fully understood, the patient signs a signature-capture pad that ties his or her official consent of understanding with the specific tape. A CT Series thermal transfer barcode printer from SATO America then creates a label in Code 39 symbology with the patient's signature and specific information about the session, such as the date, doctor's name and procedure. This is placed in the patient's file maintained in the medical office. The whole process takes under 30 minutes.

With VITAL Center, every patient is guaranteed they receive all the information they need.

"The best thing about this is that I know, that, at four in the afternoon, I am getting the same information as the person at 8 a.m. when everybody was fresh and didn't have the day's work on their mind," said a 50-year-old male patient.

### **Making The Right Printer/Label Choice**

Vital Link.net chose the rugged SATO CT Series printer--after an extensive search--because of its speed and small size, says Ryan. The printer runs at 6 inches per second and is only 7.8 by 9 by 7.2 inches, making it easy to fit into tight medical environments. "For legal reasons, we needed a label that could be stored for 30 years and



that is why we chose a thermal transfer label printer from SATO America," says Ryan. "It's also easily networkable and was actually developed for a hospital environment."

Once the informed-consent process is finished, the digitized signature, the actual educational session, a video capture of the patient watching and responding to the medical graphic session and the physician's participation are transmitted over Vital Link.net's broadband, virtual private physician network to Vital Link headquarters. Ten or more sessions are stored up to 30 years on pre-barcode magneto-optical disks. The software system ties the session's barcode number with the disk's barcode. Any future question about the surgery performed, either by the physician or the patient, is resolved by viewing the originally recorded session. To retrieve the optical disk with the originally recorded session, the doctor simply sends Vital Link.net a copy of the patient's barcoded consent form. Vital Link.net scans the barcoded document into its system to learn where the disk is stored and retrieves it to access the recorded material.

Vital Link.net's broadband virtual private physician's network lets Vital Link.net continuously update all screens across the country directly from Vital Link.net headquarters. New information may be updated content for medical procedures or simple software updates. It guarantees patients they will always see and hear the latest information. In addition, all the data shown is approved by physician peers and reviewed by malpractice lawyers, says Ryan.



### In The Waiting Room and Beyond

VITAL Center also can be used for simple patient education while waiting to see the doctor. Patients choose among 1,800 one to three minute multimedia vignettes on specific health-related topics, diseases and therapies.

VITAL Center can expand modularly across varying applications. Future applications include the storage and retrieval of medical digital images, prescription ordering, and dictation. Physician offices will perform all these tasks through one appliance - VITAL Center.

Already 20 medical facilities across the United States use VITAL Center. Vital Link.net, which installs the system without charge, is reimbursed on a monthly fee basis.

Through VITAL Center, Vital Link.net takes advantage of multiple technologies to inoculate both patients and physicians against lack of pre-procedure information and future legal entanglements. It fully answers patients' pre-surgery questions and reduces their anxiety, while simultaneously building a better patient physician relationship. It's definitely the right prescription for complete pre-procedure patient education.



### SATO AMERICA CORPORATE

10350-A Nations Ford Rd  
Charlotte, NC 28273  
Phone: (704) 644-1650  
Fax: (704) 644-1662  
sales-sallc@sato-global.com

### LABEL MANUFACTURING, SERVICE & SALES

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