

Patient Entertainment Systems ...more than just cable TV

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Today's patient entertainment systems have evolved to offer more than just cable television to the hospital room. Anyone who has turned on the television in a hotel room recently has experienced the basics of the modern patient entertainment system. Along with the standard offerings of local broadcast and movie channels, custom patient information and education can now be provided to the bedside as well as local hospital news and events.

The patient entertainment system still relies on the CATV backbone of the past, but advances in signal distribution have led to hybrid systems of coax, Cat5 and in some cases fiber to the television to provide higher definition programming as well as high speed internet and access to patient records and treatment programs. A recent trend is to provide computer connections to allow for patients to use a personal laptop or for physicians and nurses to use a medical tablet to display and discuss procedures and treatment options.

While the technology and signal distribution infrastructure has only changed slightly in the past few years, the most noticeable change has been the level of options and interaction provided by the patient entertainment service providers. Most systems start with the basic local cable provider or satellite feed and quickly move into local insertion channels such as hospital events and custom patient education programming as well as internet access, video on-demand, gaming and interactive programming. Some systems allow for the patient to arrange their hospital check-out, take surveys regarding their hospital visit and order meals from their bed.

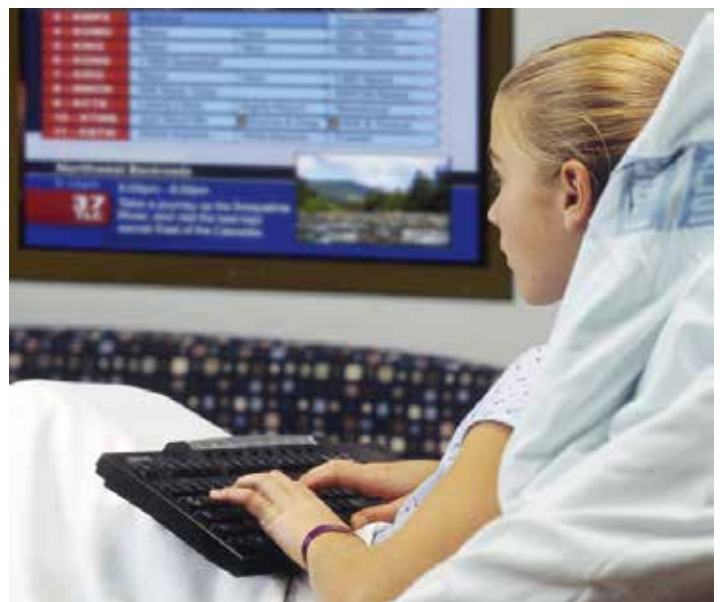
Old versus new

The older systems usually have patient education programs running on a continual loop from a remote head end of VCR or DVD players and the patient or nurse would be required to turn on the television and pick the appropriate channel at a predetermined time. New patient education programming is typically on-demand or prescheduled where the television is turned on at a selected time, the required channel is selected and the content is

played at a predetermined volume. Additionally, the advent of lower cost high-resolution large flat panel displays has made the viewing experience much more enjoyable. The old low resolution scrolling text of hospital events has been replaced by higher end graphics with video insertion and animation.

While some systems provide the patient with internet access or a laptop connection, there is a trend towards incorporating touch technology and bringing the interactive experience to the patient bedside. While the common deployment of patient systems has been a wall mounted television at the foot of the bed controlled by the nurse call paddle or pillow speaker, newer systems are using a large touch panel on an articulating arm at the head of the bed. The patient can use the touch panel to make and receive calls, surf the internet, order meals or play games.

Several systems include an integrated webcam that can be used for Skype calls or provide a self-view and double as a mirror. As these systems are basically providing a networked PC, the hospital staff can also access patient



records and input patient information. These types of enhanced access systems are being slowly deployed however, as many medical facilities are adapting standards and procedures for electronic patient records and other HIPAA compliance related issues.

Evaluating Costs

As with everything related to technology in our modern society from cell phones to internet to cable TV, patient entertainment systems have up front and continuing costs that must be considered. Each service provider has a large menu of choices to be considered once the initial infrastructure has been designed and installed.

- Does the hospital want to purchase and maintain a local head end and video server for delivery of content or choose a hosted cloud based solution with content streamed over a secure high speed connection.
- Should a set top box, required for most basic cable TV solutions, or an in-room PC be provided for an interactive solution?

Next, the various levels of functionality and related costs must be decided. Basic CATV, Video on Demand, Gaming and Patient Education systems are included as part of many service providers' standard package with Menu services, Patient Record retrieval and management and higher levels of patient interaction like check-out and surveys available as add-ons. The initial per bed costs of a Patient Entertainment System can range anywhere from \$500 to \$5,000 and doesn't include reoccurring ongoing subscription, content development or support and maintenance costs.

The enhanced patient experience is a requirement in the current healthcare marketplace. Modern patient entertainment systems meet this expectation, delivering more than just cable TV and contributing to better delivery of care.



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