

The Key to Future-Proofing the Patient Experience: IPTV and Infotainment



THE FUTURE OF HEALTHCARE TECHNOLOGY



HOSPITAL INFORMATION EDUCATION RELAXATION
CONNECTED PATIENT ENGAGEMENT
INNOVATION PROMOTES PATIENT HEALING



4191 Fayetteville Rd.
Raleigh, NC 27603

info@telehealth.com
www.telehealth.com

T (800) 535-2459

Key Points

- Future changes in healthcare require an IT strategy that anticipates new challenges.
- IPTV infrastructure is perfectly aligned with the Internet-enabled connected healthcare and the future of patient infotainment, and future advancements in technology and services
- An IPTV infrastructure opens the door to a patient-centered IT strategy, IT cost containment and efficiency, as well as integration of clinical and non-clinical operations.
- IPTV is the gateway to myriad patient engagement opportunities including pain management through distraction and customized experiences as well as new revenue streams.

The rate of change in the consumer experience has accelerated so much in recent years that hospitals are all but forced to respond with proactive IT strategies. Smart healthcare leaders are recognizing the vast disparity between the consumer infotainment experience and that of their patients and are insulating their organizations against future healthcare technology disruptions by laying a foundation that will carry them into the digital age of the patient experience and beyond.

At TeleHealth Services, we've observed decades of innovation around the intersection of television and integrated patient education technologies and know that one thing is clear — as with most aspects of the patient experience, simple is better. We also know that the simplest approach to future-proofing an organization against the vast array of possibilities heading down the patient experience pipeline starts with an IPTV infrastructure that facilitates complex applications and keeps your facility responsive to patient needs and competitive for years to come.

It All Starts with an IPTV Infrastructure

IPTV or Internet Protocol Television is television services (including TV programming, video-on-demand, and other multimedia content) that are broadcast over the Internet using the Internet Protocol suite.

The Internet is the present and future of hospital technology, meaning an IPTV infrastructure is actually a jumping off point to connecting the hospital TV experience with multiple IT and organizational initiatives including:

- Digital health and the patient experience
- IT cost containment and value realization
- Branded innovation
- Support for sustained growth
- Increased security

This is because so much of hospital technology, from EHRs to nurse call systems to even physical security, are already functioning through the Internet. Leaving your patient media and communications effectively off-line might feel logical in the short run, but is a high-risk and expensive decision as the rest of your systems continue to evolve.

An IPTV infrastructure insulates you against the imminent changes in healthcare by breaking down one of the last silos in patient engagement, giving birth to IT efficiencies, and positioning your facility to provide the best service possible to your care community. All of this is facilitated through the components that make up the foundation of your IPTV solutions:

- **Head-End Equipment:** Encoding and transcoding equipment to distribute either cable or satellite programming
- **Network Infrastructure:** Switches, network cabling and servers to support video on demand/streaming media, encryption, and other applications
- **Middleware/Application** to define the user experience and make content and services available to the patients, visitors, and staff
- **Patient Room Hardware:** Patient bed interface including nurse call remote or keyboard, pillow speakers, and televisions

The Internet is the future of hospital technology. IPTV infrastructure is a defining piece of that puzzle.

IPTV Myths

Myth #1:

IPTV is just sending video files over the Internet and therefore subject to the same interruptions and lag issues that are so common online.

Truth: For consumers, IPTV functions just like broadcast TV guaranteeing a quality-of-service level that allows optimum enjoyment of delivered content.

Myth #2:

IPTV is less secure than “normal” TV.

Truth: IPTV is harder to hack than cable, satellite, or terrestrial encrypted pay-TV

Myth #3:

Net neutrality laws mean that IPTV services are at risk of becoming illegal.

Truth: Since IPTV traffic doesn't travel through the broadband remote access server, it can't be impacted.

IPTV Infrastructure Is the Gateway to a Future-Proof IT Strategy that Includes Infotainment

Because of its integrative nature and alignment with other Internet-based platforms, an IPTV infrastructure is a critical enhancement to some of your most complex and pressing IT initiatives.

A Truly Patient-Centered Hospital IT Strategy

If your IT strategy prioritizes patients but isn't acknowledging the importance of the patient room television (one of their central points of engagement as a consumer) you're wasting time, resources, and effort. The patient TV plays an integral role in providing entertainment (a key distraction element) along with valuable information that is highly relevant to the patient.

Patient-centered, digital health elements like inpatient smart rooms and a branded patient experience leverage the Internet at all points in your technology strategy. IPTV transforms the hospital television into a middleware application that allows patients to interact more with the

screen from their beds. The possibilities are broad and include:

- Pain assessment via an interactive chart
- Automatically displaying care team information including names and photos
- Providing clinician-prescribed educational videos
- Hospital-wide messaging including safety alerts

Your IT strategy can center on providing patients a truly personalized and patient-centered visit, all because of the critical role IPTV can play in transforming the patient consumer experience.

Stretching the IT Dollar Through Patient Infotainment

A significant part of the patient experience is based on information exchange. At the same time, the *Journal of the American Medical Association*¹ cites that only about 12 percent of adults in the U.S. have a proficient state of health literacy — a large gap for any provider to cross.

Enter **patient infotainment**.

The human brain processes information more effectively when images and video are involved², meaning hospitals have a huge opportunity to better engage patients through the use of more vivid and dynamic forms of relaying information. IPTV enables “patient infotainment”, which includes basic patient TV solutions like DirecTV, and remote management, but broadens the patient experience to include:

- Tablet control of TV
- Customized and branded hospital information pages
- Entertainment, relaxation, and music on demand to reduce anxiety and boredom (while increasing patient satisfaction)
- Health information videos on demand
- Hospital messaging pop-ups and scrolling
- Automating patient requests
- Noise/sound reduction and sleep-calming content
- Access to quality, scheduled video-based patient education
- Analytics

IPTV systems facilitate patient infotainment and allow for expanded patient access to a wide range of information, health education, and entertainment content — even the ability to easily create and manage a custom, branded, hospital TV network and leverage organization-wide messaging. These systems also enable the centralized management of that content along with the ability to track what’s being viewed, by whom, and for how long.

An investment in IPTV infrastructure provides demonstrable ROI from a wide range of patient infotainment and engagement IT initiatives, as well as simplified, lower-investment information distribution in the future. Outsourcing these services allows existing in-house IT teams to focus on high-priority strategic goals and leave patient education and infotainment to specialists. (For example, IPTV experts are versed in addressing the issues posed by hospital campuses consisting of a mix of old and new buildings and their disparate signal infrastructure challenges.)

IPTV networks also offer an enterprise-wide, cost-effective television solution. Because of their built-in scalability, IPTV systems are faster and easier to deploy than other TV and infotainment options, helping you conserve already stretched technical staff resources.

Clinical & Non-Clinical Integration

A Spyglass Consulting Group’s study³ found that 90 percent of hospitals are making “significant enterprise-wide investments” in new modes of communication to address the needs of both their patients and workers — hospitals surveyed have been evaluating next-generation communications platforms and investing in technical infrastructure to align with the Triple Aim framework⁴.

The future of clinical and non-clinical integration is unified, tech-enabled communication. Connecting this union with the patient experience through patient infotainment requires an Internet-based infrastructure that joins seamlessly with the rest of your IT landscape. Clinicians are increasingly moving into VoIP (Voice over Internet Protocol), context-aware, real-time communication platforms as a standard, and yesterday’s TV solutions not only can’t keep up, but they’ll leave patients behind.

IPTV and the Future of Hospital Technology

What's Not Changing

- **Digital TV is here to stay:** Analog TV dominated for nearly 70 years and it took almost two decades from the advent of digital to see it officially implemented across the country.
- **Hospitals are invested in the Internet:** From EHR patient portals, to nurse call systems and the IoT (Internet of Things), the Internet is the future for hospitals (meaning TV needs to catch up).
- **Patients are the priority:** Hospital initiatives are increasingly moving toward the way patients live their non-healthcare lives...lives that revolve around the Internet.



What Is Changing

- **Patient expectations:** The “patient consumer” has arrived, and they expect personalized, interactive, flexible digital experiences in all spaces, hospitals included. Patient infotainment via IPTV taps directly into their motivations.
- **Clinical and technical are converging:** Healthcare silos are being torn down across the board. Clinical and technical experiences have merged to each other's benefits. No corner of the patient experience is exempt, including the TV experience.
- **Nurses need support:** From a nursing shortage to rising patient expectations, nurses and other staff (including patient educators) are expected to do more every day. Nurses represent the most essential day-to-day staff on the hospital floor, and they need time to focus on care above non-clinical patient requests. From integration with nurse call systems to patient education and direct connection with housekeeping and food services, IPTV is the first step in freeing up nurse time. (Read more about how interactive video can streamline nurse workflows at: <https://www.telehealth.com/sites/default/files/th-chicasestudy-072817.pdf>.)

IPTV Is the Key to a Robust Patient Experience that Helps Drive Patient Satisfaction.

The most important thing to remember about IPTV infrastructure is that it's just the beginning.

IPTV is the first step toward the rich, satisfying patient experience that defines patient infotainment and sets facilities and systems apart. IPTV helps organizations build the patient loyalty that keeps cash flows healthy and ROI on patient engagement investments high.

Managing Patient Discomfort

Discomfort, whether physical or mental, is part of the healthcare experience for most patients. We've known for years that distraction can produce analgesic effects among chronic patients⁵ and that the effect isn't just psychological⁶.

IPTV introduces a world of opportunities where patients can distract themselves through traditional entertainment options; but it also goes a step further: empowering hospitals and clinicians to leverage patient infotainment and innovate their own interactive distraction techniques, simply and easily. This ultimately results in a better patient experience and higher patient satisfaction levels that correlate with improved financial performance.

Centralizing Management Capabilities

One of the most high-impact features of IPTV is control.

IPTV gives hospital leaders more options in customizing patient viewing and interaction, birthing the ability to create an “at home experience,” leverage the ubiquitous and familiar screen to increase clinical engagement, and streamline operations around patient education.

IPTV Innovation Drives Healing

Creative use of technology is a powerful tool, and innovative hospitals are reaping the benefits. The non-profit system UCHealth prides itself on innovation and has invested in IPTV to improve the patient experience, increase quality, and lower the overall cost of care.

Their implementation of a TeleHealth IPTV system at the recently opened Longs Peak Hospital location comes alongside a virtual ICU, virtual sitter services, and the use of wearables to monitor patient vitals. Each of the rooms in the 51-bed hospital is connected to the IPTV network, opening the door to new levels of clinical information, quality entertainment, and patient education. Doctors and nurses are even able to share results, including MRI and X-ray results, right through the TV screen. The system is further enhanced by bedside iPads, allowing patients to better understand their medications, order meals, learn more about hospital services, and even track lab results.

For UCHealth, IPTV is a part of a larger strategy to unify information and entertainment delivery to patients. UCHealth is already using IPTV to deliver internal staff communications.

UCHealth's Clinical Informatics Senior Multimedia Developer Ed Horowitz has seen firsthand how patients are more satisfied with the experience, more engaged, and heading toward better outcomes.

“We’re working for the full-featured patient experience, so the television is more than just entertainment. The IPTV system will become the gateway to real-time clinical information and entertainment programming.”

- Ed Horowitz, Clinical Informatics
Senior Multimedia Developer, UCHealth

Exploring New Features

Innovative facilities can go well beyond basic uses of IPTV.

IPTV's interactive patient infotainment capabilities enable integration with food and beverage delivery and open up the possibilities of patient-experience boosting options such as on-demand music and relaxation channels, as well as AI-driven patient engagement systems⁷. They even clear the path to revenue-generating opportunities such as prescription fulfillment, placing gift shop orders, patient financial education, and billing literacy that boosts cash flows.

Also, keep in mind that IPTV allows for easier integration of television-based patient engagement systems with EMRs — a key driver for demonstrating interoperability performance under the Merit-based Incentive Payment System (MIPS).

Tomorrow's Patient Experience Starts Today

The time to explore the benefits of moving away from yesterday's TV infrastructure is now. Hospitals around the country are looking for ways to differentiate themselves and create the patient infotainment experiences that form lifetime relationships with their care communities.

Start by assessing the costs and quality of your current TV solutions and their relationship with the rest of your IT infrastructure; then evaluate the gap between the current state and your future IT initiatives.

As you move forward, be sure to consider partnering with a trusted solutions provider who understands not just IPTV, but who has learned how to let patients drive the engagement and experience conversation through broad expertise working with a large number of diverse hospital systems.

About Telehealth Services

With 60 years of patient-centered expertise, TeleHealth Services is driven to transform the patient, guest, and staff experience using innovative patient engagement and audio visual technologies. Working together with 2,500+ healthcare organizations, the company designs and delivers turnkey solutions that increase patient satisfaction, improve quality of care, and maximize clinical and operational efficiencies for better health outcomes.

For more information contact TeleHealth Services:

Phone: (800) 535-2459

info@telehealth.com

Resources

- ¹ Koh HK, Rudd RE. The Arc of Health Literacy. *JAMA*. 2015;314(12):1225–1226. doi:10.1001/jama.2015.9978.
- ² Rachel Gillett, “Why We’re More Likely To Remember Content With Images And Video (Infographic),” Fast Company, September 18, 2014. <https://www.fastcompany.com/90276306/our-phones-are-making-us-unwell-but-behavioral-design-can-help>.
- ³ Spyglass Consulting Group, “Study: Hospital IT Smartphone Investments Are Driving Clinical Transformation, Says Spyglass Consulting Group,” news release, April 2, 2018, Spyglass-consulting.com. http://www.spyglass-consulting.com/press_releases/SpyglassPR_CLINICAL_COMM_2018.v1.0.pdf.
- ⁴ Institute for Healthcare Improvement Triple Aim: improving the patient experience of care (including quality and satisfaction); improving the health of populations; and reducing the per capita cost of healthcare.
- ⁵ Kristin L. Schreiber et al., “Distraction Analgesia in Chronic Pain Patients,” *Anesthesiology* 121, no. 6 (December 2014): doi:10.1097/aln.0000000000000465.
- ⁶ 24 May, 2012 By The Press Association. “Mental Distraction May Reduce Patients’ Pain.” *Nursing Times*. <https://www.nursingtimes.net/clinical-archive/pain-management/mental-distraction-may-reduce-patients-pain/5045274.article>.
- ⁷ Alice Ferng, “AI-Driven Interactive Patient Engagement: Interview with TeleHealth’s Richard Bootes,” *Medgadget*, May 08, 2018 <https://www.medgadget.com/2018/05/ai-driven-interactive-patient-engagement-system-for-hospitals-interview-with-telehealths-richard-bootes.html>.