



Tablet Carts in Healthcare:

Work Use Cases and
Buyer's Guide



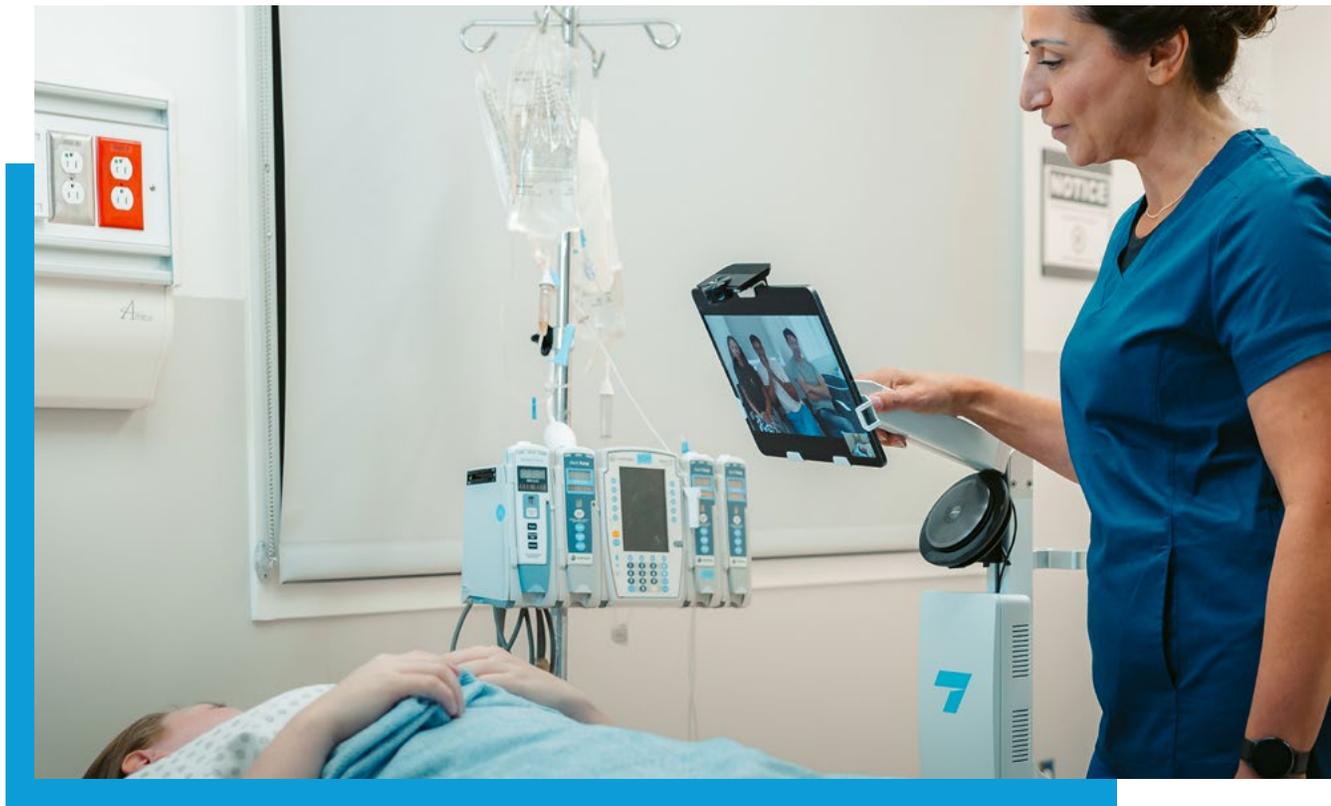
1-800-860-4455
www.tryten.com



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Rise of Tablets in Healthcare



Technological innovation in the healthcare industry is a perpetual reality that touches every facet of the field, from diagnostics to therapeutics to patient experience. Billions of investor dollars pour into the healthcare industry every year, funding a constant stream of advancements and disruption, no different than any other industry — speed notwithstanding. There's a natural flow to this, but occasional external macro forces accelerate change, like a global viral pandemic.

The first generation of the world's most recognized tablet computer — the Apple iPad — first appeared in early 2010. With its portable, user-friendly, and near-revolutionary user experience features, this device promised to deeply change how the healthcare sector operated.

Despite this promise, most healthcare systems were slow to adopt it. Concerns about Personal Health Information (PHI) privacy and data security (HIPAA regulations) were real, as were technical concerns regarding integration with EMR and other backend systems. Then there were the concerns over the impact on care workflows and the training that would be required. Finally, the lack of understanding of the impact on patients' health made it difficult for healthcare providers to embrace tablets.



However, the outside world had other ideas.



In 2011, consumers bought 60,000,000 tablets.



The pharmaceutical industry started developing apps and tablet-friendly websites to offer drug-related details such as patients' allergies or disease and treatment information.



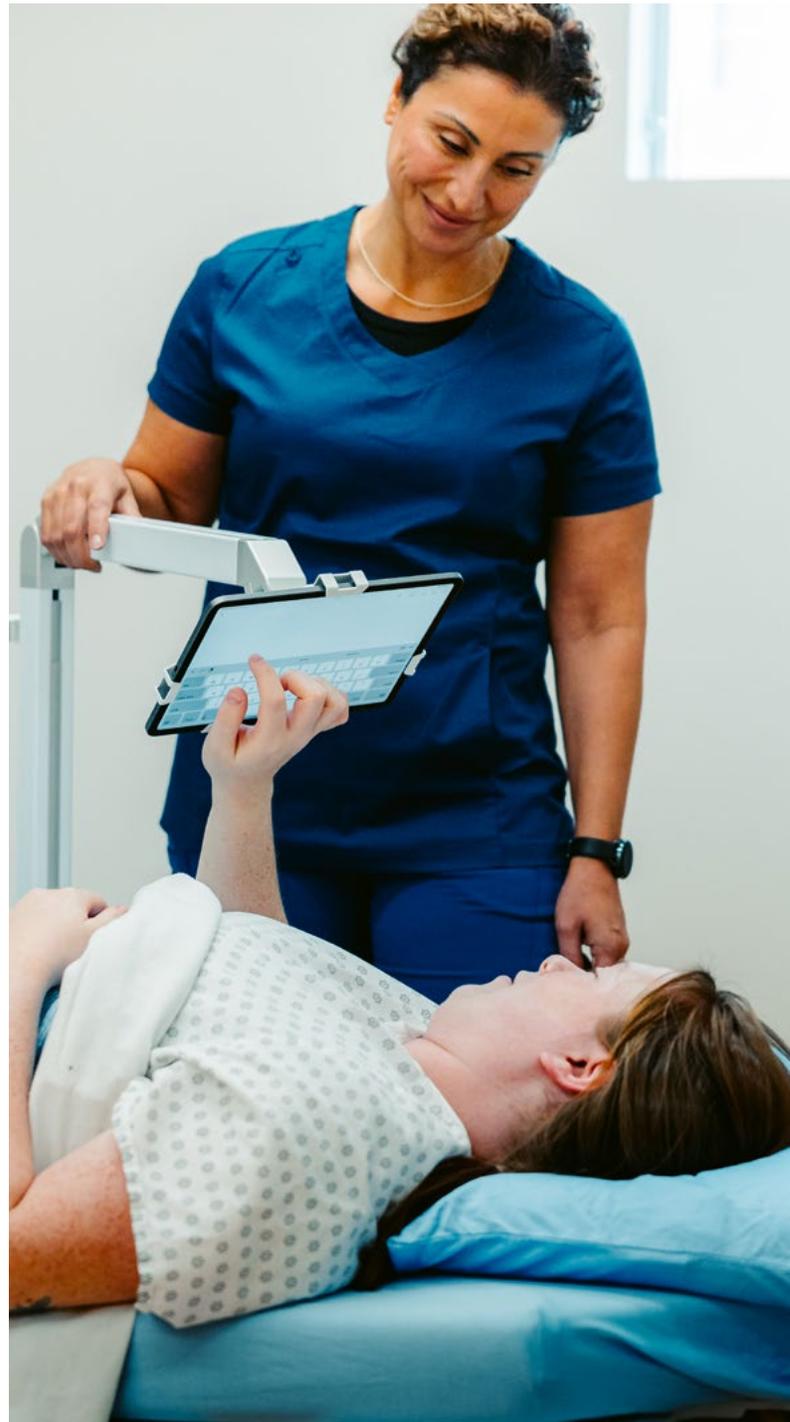
The biotech industry adopted tablets for data collection, field-level monitoring, and image capturing using the cameras on the tablets.

[In 2012, a Bay Area biotech firm, Genentech](#), rolled out 7,000 iPads to its employees worldwide to customize native and mobile web pages and collect field information and patient data.

This rapid adoption in the consumer and enterprise sectors puts immense pressure on the healthcare industry to evolve and use mobile technologies to improve communication, facilitate information access, and enhance workflow processes. Doctors, physicians, and nurses were early tablet adopters and are the largest user group in healthcare today. Although many had acquired tablets to help patients stay connected, they often lacked the applications to help them conduct their day-to-day work. To close the vacuum in this space, the lagging healthcare industry had to readjust its strategies for prioritizing the adoption of tablet technology.

Eventually, tablets proved highly effective for recording and sharing audio, video, and high-resolution images, allowing more convenient

diagnosis, data entry, and care delivery. [A 2013 study](#) revealed that “half of the providers perceived the use of a tablet computer as having



a positive effect on patient communications, patient education, patients' perception of the provider, time spent interacting with patients, provider productivity, the process of care, and satisfaction with the electronic health record (EHR) when used together with the device.”

More recently, the global Covid-19 pandemic of 2020-2022 pushed tablets deep into the mainstream medical practice, leading to much broader adoption across the care spectrum. Tablets make it easier and faster to gather and access information with the touch of a finger, creating enormous value for healthcare providers in speeding up basic, time-consuming workflow processes while also bringing more data and functionality to the patient bedside.



Embracing tablets has helped hospitals deliver high-quality care, no matter where the patient and providers are. Use cases are broad, as outlined in the next chapter. Adopting technology in healthcare is a critical driver in achieving Healthcare’s Quadruple Aim, a framework developed to optimize health system performance by:

**1. Improving the patient experience of care
(including quality and satisfaction)**



**2. Improving provider satisfaction
(providing access to tools and resources to
address provider burnout)**



3. Improving the health of populations



**4. Reducing the per capita cost of
healthcare**



Key Advantages of Tablets in Healthcare



Portability

Tablets are compact and portable since they are small and lightweight. They are easy to use compared to big computers and workstations on wheels, which are used for most charting and documentation workflows.

Efficiency

Tablets eliminate the need to manually fill out forms and copy documents, resulting in significant time and cost savings. They also provide quick access to patient information, allowing for a faster care delivery process.

Security

Tablets provide better data security than hard paper copies of information. The iPad and similar tablets provide 128-bit and 256-bit encryption of data on storage and transmission. This minimizes data leaks and security violations from the manual handling of unencrypted paper forms.



The ease of communication through tablets allows healthcare providers to remotely and rapidly coordinate information and connect patients with specialists and families.

Secure, cloud-based data allows every team member access to the same accurate data. As a result, individuals are less likely to repeat data entry errors and commit new mistakes.

Today's more modern diagnostic medical devices often run on tablet-based apps. Medical professionals now have a plethora of tools at their disposal. They can deliver more effective services because of modern hardware and software.

Tablets help healthcare systems, organizations, and practitioners improve access to quality care in remote areas. In rural areas, using technology to deliver healthcare services can lessen or eliminate patient problems and burdens, such as transportation issues associated with travel for specialty care.

As outlined, tablet adoption in healthcare has several contributing factors, but perhaps the most powerful is its impact on telehealth and connecting patients to their remote care providers. Advances in health technology and improved telecommunications systems combine to expand and improve care delivery — no matter where the patient and provider are.

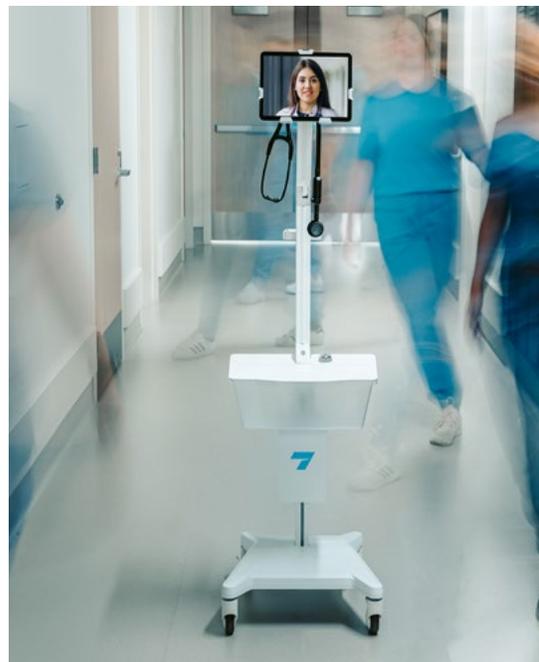


We have only just begun to scratch the surface of tablet usage in the healthcare industry, but these devices have already revolutionized healthcare by shedding paper-based operations and improving access to care in urban and rural areas. Now that we have discussed how tablets emerged in the healthcare industry, let's explore how tablets are used in healthcare today and what the future has in store.

Why Put a Tablet on a Cart?

Tablets play an ever-expanding role in healthcare delivery and patient engagement. Their power and ease of use help save time, energy, and money across the care cycle. Technological advancements during the pandemic have allowed tablets to go beyond a single portable electronic device.

Tablet carts — also known as medical carts, hospital carts, or mobile carts — have further transformed the healthcare industry as virtual care has become a staple healthcare method. These feature a tablet on a stand or articulating arm attached to a wheeled base. There were valid concerns about cleanliness and infection control when using tablets between patients during the pandemic, but the revolutionary workstation on



wheels mitigated these concerns. Hospitals could use tablets to provide in-office and virtual care. Tryten's rolling medical carts allow healthcare practices to expand their reach, improve clinical metrics, and increase patient engagement and health outcomes. Below is a list of the most typical tablet cart use cases in hospitals and clinics today.

Telehealth

Do you know someone who needs to see a remote specialist? Do you need to access and share vital test results quickly and confidentially? An easy solution is to conduct a telehealth visit on a telehealth cart. Medical providers and staff alike can connect with patients remotely to provide care.

Also known as a telemedicine cart, a [telehealth cart](#) is a mobile computer cart equipped with technology for two-way video conferencing. Telehealth visits are easily conducted on a tablet through native audio and video capabilities or dedicated apps. Patients can connect to remote providers and specialists during the same visit if needed.

Benefits of Telehealth

- Improves accessibility for people who live in rural or isolated communities
- Provides access to remote specialists across town or anywhere in the world
- Improves coordination of care among healthcare teams and patients

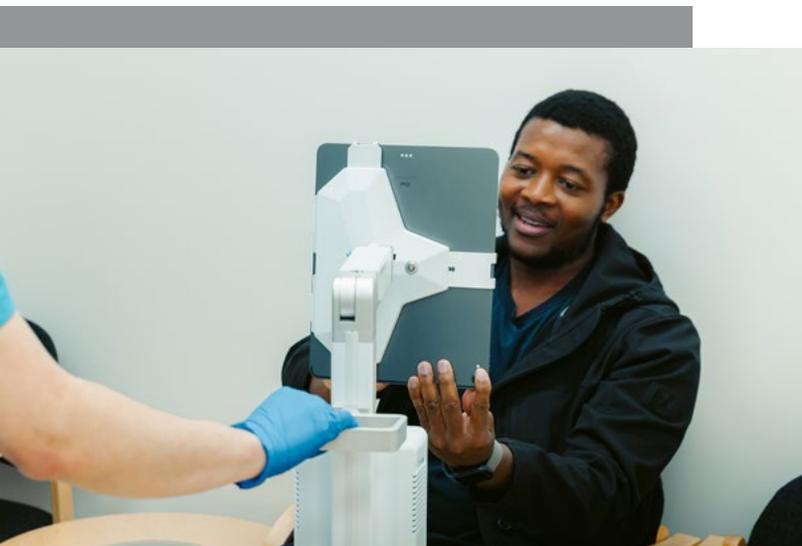


Patient Registration

During the COVID-19 pandemic, hospitals and care centers accelerated the adoption of contactless registration solutions that were simple to set up anywhere, including the parking lot; easy to use; and safe and secure for patients and providers. Mobile [patient registration carts](#) made this easier. These medical computer carts feature a mounted tablet or touchscreen and registration system for patients to input their information into your EHR system. Those who adopted tablet-based registration aren't likely to return to the old way of managing patient intake.

Benefits of Patient Registration

- Tablet cart-based patient registration is deployable at reception, in the ED, outside, or anywhere with internet access
- Tablets help minimize messy paperwork and the manual workflow process
- Registration endpoints can be spun up or taken down quickly and easily with minimal space requirements
- Their familiar interface reduces barriers to patient adoption



Patient Registration Success Story



The Delaware Valley Community Health (DVCH) is a federally designated health center in Pennsylvania's southeastern region. Faced with the barriers that COVID-19 presented, the DVCH team (CEO: A Scott McNeal, DO, CMO: Dr. Julie DeJoseph, and CIO: Isaiah Nathaniel, CPHIMS) quickly implemented a [COVID screening/testing solution](#) on iPads mounted on a [Tryten S1 Tablet and Medical Device cart](#).

The providers and the patients could access the telehealth application for screening and testing from the iPad on the Tryten cart. DVCH quickly pivoted to telehealth to help its community in a global pandemic.



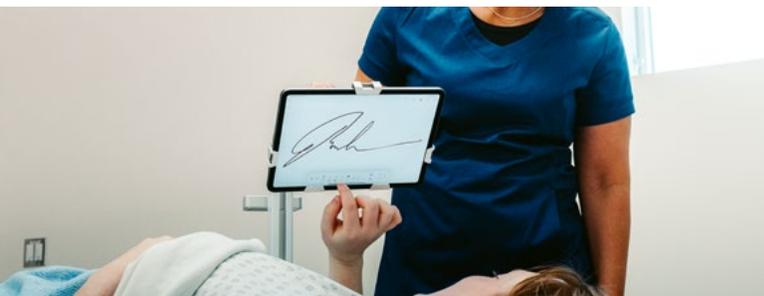
EHR Workflow Support

EHR (or EMR) systems are a staple of today's hospitals and health systems; gone are the days of paper-based intake and charting. EHR is not new, but using tablets to access them is. [Evaluation results](#) following the deployment of tablet-based EHR at the University of Maryland Medical Center indicated the clinicians were "satisfied to extremely satisfied" with the performance of tablets in accessing patient information in clinical conditions.

[EHR carts](#) are the perfect solution to streamline EHR processes further. An articulating arm holds a tablet, vital sign monitors, and other accessories for efficient recording. Providers can input information in real-time and verify it with patients before submission.

Benefits of EHR Workflow Support

- The tablets' lightness, portability, and familiar user interface make for an easier companion than heavy, PC-based systems with dated user interfaces. Not only does this equipment streamline workflows, but it also makes adoption easier
- Data entry on a tablet is much faster and less error-prone than paper workflows
- Tablet cart-based EHR systems are easier to access on the go, decreasing the time needed to check medical records and increasing physicians' bedside availability



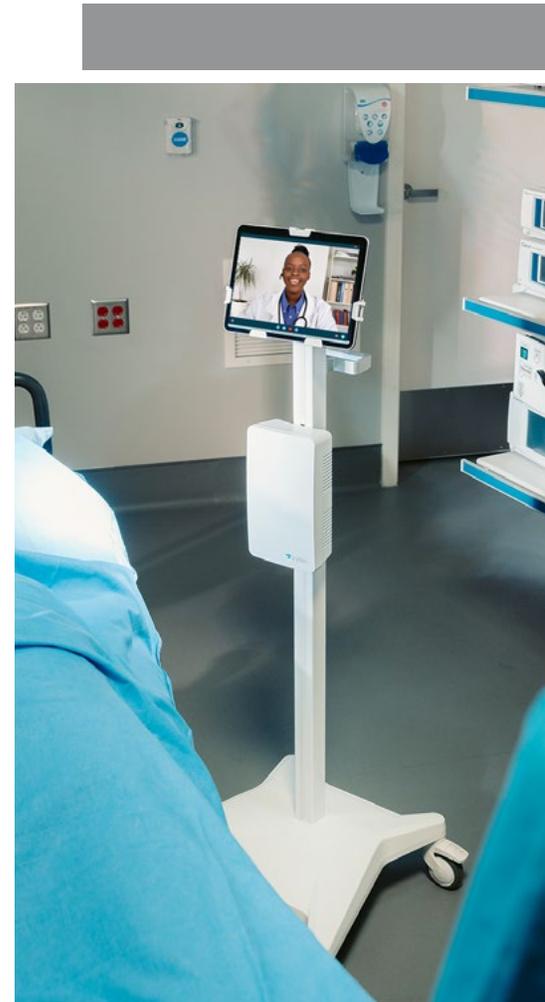
Virtual Rounding

Virtual rounding – a system in which healthcare providers use collaborative technologies to treat patients remotely during their rounds in hospitals or other healthcare facilities – is not new. However, healthcare providers were forced to expand their virtual rounding practices during the Covid-19 pandemic to limit exposure to and spread of the virus.

Now physicians have access to [virtual rounding carts](#), which feature a large tablet or monitor and video camera connected to an upright stand on a wheeled base. These mobile medical carts allow you to mimic face-to-face interaction while performing rounding duties virtually. They can also be rolled around the hospital for easy access.

Benefits of Virtual Rounding

- Built-in audiovisual capabilities simplify remote access for care providers. No need for expensive audiovisual software, large displays and cameras, or a place to store them safely
- Physicians can be physically present in the patient's room and use a tablet to engage with a remote care team. They can also check-in remotely from any location while the patient is in the hospital or clinic
- Their low cost and light weight make virtual rounding more accessible and cost-effective



Medical Device Companion

Medical devices are getting smaller and more portable, relying increasingly on tablets or smartphones. Tablets serve as an effective and intuitive user interface to run medical devices and provide high-quality visual output on a compact footprint. From digital stethoscopes to ultrasound to ECG and beyond, we can expect more diagnostic and treatment devices to be paired with tablets to streamline workflows and minimize patient trauma.

Benefits of Medical Device Carts

- Intuitive user interface suitable for a wide range of modalities and applications
- Portability encourages easier use and can often reduce the number of devices needed in a given location
- High diagnostic image quality comparable to conventional equipment
- Instant, seamless communication between on-site care providers and remote collaborators.



Several medical device companies have attached their products to tablets. For example, ultrasound companies, including [Butterfly Network Inc](#), [Clarius](#), and [Philips](#), use tablets to conduct exams and share results between doctors, patients, and remote specialists.



[Medical device carts](#) carry these tablets and digital diagnostic tools, allowing you to transport them safely and discreetly through your practice. The tablet records and transmits readings instantaneously for a streamlined workflow, and storage baskets make carrying necessary accessories easy.

Video Remote Interpretation

Video Remote Interpretation (VRI) is a well-established service offered by companies including [Caregility](#), [Cyracom](#), [CloudBreak Health](#), and others that connect caregivers to remotely located interpreters to overcome communication barriers between them and their patients. This can be achieved via audio-only or audiovisual interpreting using tablets, web cameras, and monitors.

Tryten's [VRI carts](#) increase accessibility for deaf or hard-of-hearing patients. The mobile workstation carts utilize video equipment and videoconferencing software for two-way communication. The wheels allow you to transport them between rooms and hospital floors as needed to improve communication.



Benefits of VRI

- If the increasingly powerful native camera and microphone are insufficient, the tablet can be easily paired with higher-resolution peripheral devices for better audio and video quality.
- ‘Civilian’ communication apps like FaceTime and WhatsApp are widely used at home, while commercial apps like Zoom, Microsoft Teams, and Doxy are increasingly present in hospitals and clinics, translating into easier adoption for tablet cart-based VRI.

Virtual Visiting

The presence of, or access to families is essential to the mental well-being of patients in long-term care facilities, hospitals, and other points of care. During the Covid-19 pandemic, hospitals and health systems restricted or even eliminated visits from family members to stop the spread of the virus and ensure the safety of staff, patients, and families. The impact was palpable; not only did isolated patients suffer from the added stress and anxiety of not being able to see families, but their families also suffered from frustration and feelings of helplessness from not being able to see their loved ones, often for many months at a time.

Benefits of Virtual Visiting Carts

- Small, mobile, and easy-to-clean tablet carts allow patients to connect rapidly to their families while minimizing the risk of infection to them and to caregivers
- Already familiar with apps like FaceTime and Zoom, families and patients do not have to climb a steep technology learning curve
- Mounted on a properly equipped cart, tablets can be easily positioned to keep the patient comfortable during use, whether sitting or lying prone



Virtual Visiting Success Story



Hospitals such as [Massachusetts General Hospital](#) quickly realized they needed a viable solution to enable virtual visiting. Tablets were the go-to device. “These tablets served as personal devices for patients to connect with family and loved ones while admitted to the hospital.” ([Massachusetts General Hospital, 2020.](#))

[Virtual visiting carts](#) make visiting loved ones on tablets easier than ever. These hospital carts secure the tablet while keeping it mobile, and the small footprint saves space without compromising your workflow.



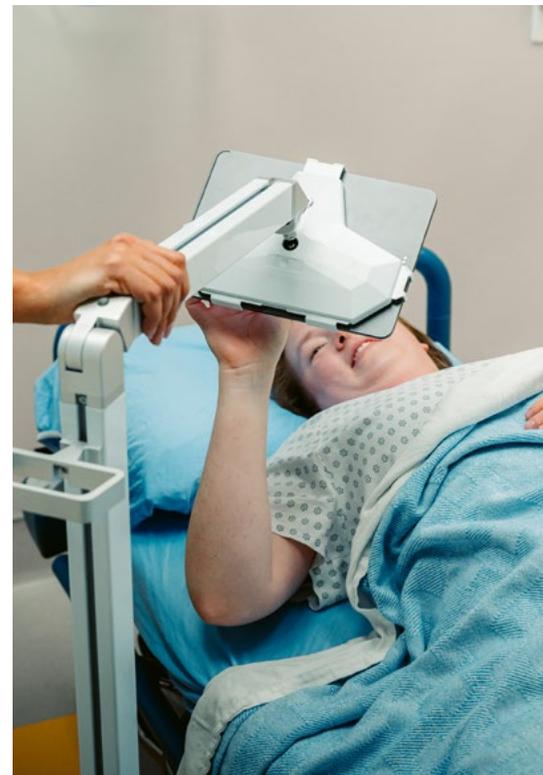
Patient Bedside

Patients often need motivation and support to recover. Bedside technology has been instrumental in modernizing the patient experience in several ways: e-consent, patient entertainment, and patient education, to name a few.

Patient bedside devices empower patients and give them a familiar platform to complete little tasks by themselves, such as ordering food, consenting to a procedure, reviewing their own medical records, or playing a video game, thus increasing their sense of comfort, confidence, control, and improving the overall patient experience.

Benefits of Patient Bedside Carts

- Bedside tablets keep patients connected to their care teams, help them stay on top of their treatment plan, and learn more about their condition and therapy
- They improve consent workflows through electronic approvals
- Tablets maintain privacy thanks to their smaller size and more adjustable viewing capabilities
- Patients can also browse entertainment options and games, order food according to specific dietary needs, and access educational content

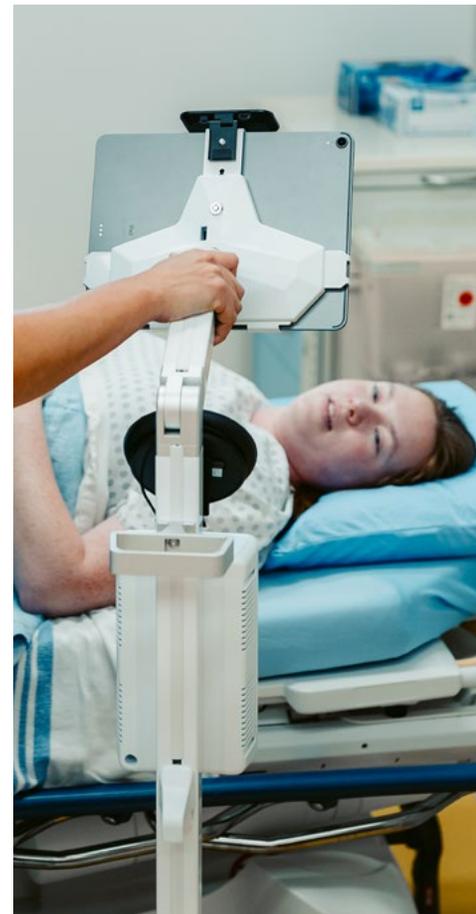


Patient Bedside Success Story



Integrated bedside terminals (IBTs) were implemented at Humber River Hospital in Toronto, Ontario, to support patient independence and autonomy and improve nursing workflows.

[The results](#) of patient satisfaction surveys indicated that the IBTs enhanced patient experiences and increased self-care management. Nurses also reported that IBTs helped patients feel comfortable and be entertained, enhancing the nurse-patient experience.



Additional Tablet Cart Use Cases

Below are some additional use cases where tablet carts demonstrate significant value.



Virtual Scribing:

A process where an off-site notetaker listens and takes notes during medical consultations via video.



Virtual Social Working:

An individual who fields questions, helps patients complete relevant paperwork, sets up appointments, and helps make the patient feel comfortable and safe.



Gaming:

Hospital visits and procedures can be intimidating and even scary for children and grown-ups alike, and many get bored while waiting. Let them use a tablet cart and problem solved.

Tryten's [mobile gaming cart](#) hygienically, safely, and efficiently brings video games into lounges and hospital rooms. You can bring your own monitor and gaming console and hook it up to the cart, or get in touch with Tryten's partner to get a gaming solution of your choice.

What's Next for Tablets in Healthcare?

Healthcare systems have been building tablet-based applications and workflows for several years, and the scope continues to expand with tablet carts. Carts' uses range from patient information, scheduling, and monitoring to collaboration and communication. Over the past decade, medical tablet carts have successfully paired with patient monitoring devices and medical instrumentation to improve patient and provider experiences.

But what does the future hold for tablets in healthcare?



According to a [new survey](#) from Strategy Analytics, “people are still working, learning, and playing from home, which is contributing to an increase in tablet demand.”

As the pandemic altered how consumers worked, Apple, Samsung, Lenovo, and Amazon recorded strong tablet performance in 2021. To validate this achievement, Eric Smith, the Director of Connected Computing, stated, “To find this kind of growth, we have to go all the back to Q1 2013, which is just incredible to think about.”



These recent trends and developments will continue to pressure the healthcare industry to innovate and introduce the right tools to help patients and providers. Healthcare systems need to focus on one common goal — ensuring that everyone, regardless of location, has access to high-quality care. Advanced technology made even stronger by increased mobility will make this a reality.

Protecting Medical Tablets and Devices with Medical Carts

[Tablet carts](#) are natural and affordable complementary solutions. Investing in the right tablet cart is vital for the security, accessibility, and mobility of your medical devices.

They carry your tablet and related medical equipment in one place and protect them from damage, theft, or unauthorized access.

You can equip your cart the way you want with a range of accessories while cleverly concealing all cables and securely hiding power connections to prevent accidental unplugging and avoid trip hazards.

Continue to the next chapter to learn what to consider when buying a tablet cart.



Tablet Cart Buyer's Guide

Here are some questions you need to answer before investing in a tablet cart for your clinic, care center, or health system. We'll follow up with a review of the must-haves and nice-to-haves for medical-grade tablet carts.



1. Your Environment



2. Your Budget



Pre-Purchase Questions To Answer

1. Your Environment

- Where are you planning to use them? (Physical Location)
- Are there any ramps that pose a tipping risk?
- How wide are the door clearances?
- What is the purpose? (Bedside, patient monitoring, remote interpretation, etc.)
- Will you need the carts to roll up next to beds or chairs?
- Which tablet do you want to put on your tablet cart? What are its dimensions and power requirements?
- Are there other devices or peripherals you want to put on your cart, such as a camera or medical device?
- How long are you planning to use the carts during each shift?
- Do you need to move the tablet to different heights or angles?
- What kind of power options do you need? (Cord powered, battery-powered, non-powered)
- Where do you plan on storing the carts when not in use?

2. Your Budget

- How many carts are you planning to buy?
- What is your total budget? (Including the required equipment on the carts)
- How much are you willing to spend per cart?
- Will you require help with assembly or setup?



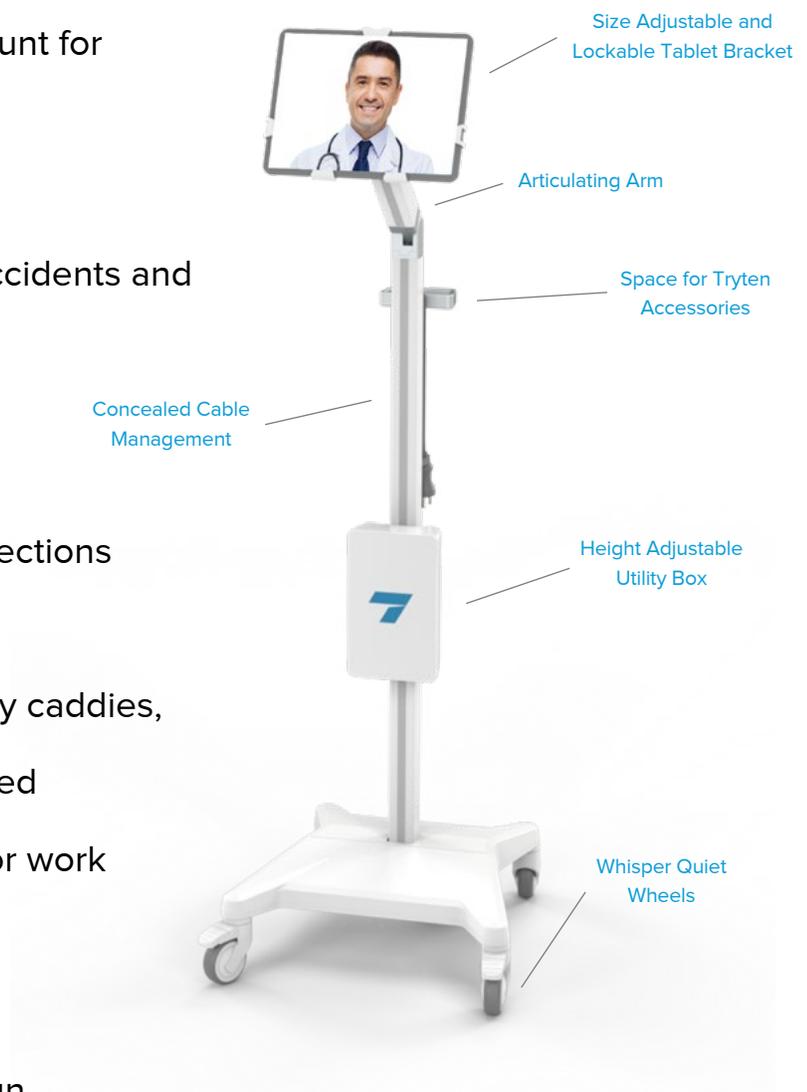
Now that you know your use case and environment let's review the must-haves and nice-to-haves in a medical-grade tablet cart.

Must Haves:

- IES 60601 safety compliance
- Minimum 3-year product warranty
- Ability to easily adjust tablet height and viewing angle to suit different patients
- Security features to avoid theft of cart-mounted equipment
- Universal, adjustable tablet mount for different tablet sizes
- Durable and quiet wheels
- Cable management to avoid accidents and promote safe operation

Nice To Have:

- Utility box to keep power connections and cords out of the way
- Ability to mount speaker, supply caddies, and other accessories as needed
- Ability to add a keyboard tray or work surface
- Easy assembly
- Lightweight and compact design





You should now be ready to talk to your preferred medical equipment vendor about tablet carts for your facility. We would be happy to walk you through the lineup of Tryten tablet carts and medical device carts to help you find the right one for your unique needs.

Get in touch with us today!

