Telemedicine is a rapidly-growing approach to healthcare delivery. Here are important tips to help you anticipate any potential problems during implementation.
Although telemedicine has actually been around in some limited form for more than two decades, it has really caught hold and achieved impressive adoption rates in the past several years. Advances in the underlying software, new deployment models, sophisticated mobility infrastructure and pressures on hospitals and medical staff all combine to make telemedicine an attractive option.

In fact, a number of research studies indicate that telemedicine is now a multi-billion-dollar industry that is expected to enjoy healthy double-digit growth rates well into the next decade. For just about all large hospital systems, as well as many smaller physicians’ practices, the question no longer is if telemedicine should be part of the healthcare delivery portfolio, but how, when and where to put it into use.

And, for many of the pioneers in telemedicine utilization, the emphasis now is on finding new use cases that can improve patient engagement, enhance practitioner flexibility, create new revenue streams and make healthcare delivery more efficient.

Still, for all the advances in telemedicine solutions and the growing acceptance of the technology by healthcare organizations and providers, it is essential to keep in mind the potential hiccups, roadblocks and unexpected problems that can crop up as systems are deployed and managed. In fact, healthcare IT and their clinical and operational colleagues need detailed planning, widespread communication and an understanding that things will happen despite everyone’s best intentions.

That said, organizations that pay attention to issues both before (deployment) and after (management) a telemedicine system goes live have the best chance to realize the many important benefits of this technology.
Deployment challenges and best practices

Deployment—the process of installing, testing, tweaking and then “turning on” your system—is obviously vital to a successful telemedicine solution. It’s important to identify and find ways to escape the impact of deployment challenges—especially before the rollout actually begins.

As you consider deployment best practices, keep in mind that one of the most undeniable elements of telemedicine is that it represents powerful change to healthcare organizations and medical professionals. For some, change can be liberating and exciting. For others, change can be unsettling or even threatening. Keep this in mind as you think about challenges and solutions in the deployment phase.

**Before you even start planning, you first need the right strategic team.** Most complex projects—those involving people, processes and technologies—fail because the plan’s objectives were never clearly delineated. And that is often because the development of the plan was made without the key input from the right people. As important as IT input, guidance and ongoing management is during and after the deployment, your telemedicine strategic plan must—without question—include representation from non-IT stakeholders, including doctors, nurses, administrators, compliance officers, finance staff and patient advocates.

The good news is that many organizations are heeding this advice and are increasingly including representatives from all parts of the healthcare organization.

**Now that you have the right team, it’s time to build the plan. And that starts with setting the right goals.** Without agreement on priorities for your telemedicine solution, problems will inevitably arise. This is why having input and guidance from medical professionals and those working directly with patients and payers is vital. Early decisions will need to be made on everything from which use cases to address first and which ones over time, which financial goals are most important, how progress will be reviewed and measured, and how the telemedicine solution integrates with strategic applications like Electronic Medical Records (EMR).
In the end, these goals should be aimed toward creating sustainable, even competitively differentiated, business value for the organization. “The (telemedicine) system is nothing if it does not deliver value to the business,” according to an article in the Journal of Scientific Research and Studies.\(^1\)

**Agree on the definition of success.** Without the proper, widely agreed-upon metrics, management and the strategic team will never be sure if they’re accomplishing what they set out to do. So get this down from the start. It’s important to determine if your system helping you by serving new patients, spending more time with existing patients and freeing up medical staff for critical care cases. Or, you might focus on measurements such as patient health outcomes, reducing readmission rates, improving patient satisfaction or increasing revenue. Each organization’s goals are likely to be different; the most important thing is to set the right goals and measure them precisely and often.

**Define the technology deployment and delivery model.** For the most part, the most important issue boils down to whether to deploy your telemedicine solution on premises or in the cloud. While healthcare organization administrators initially felt a sense of trepidation and loss of control in adopting cloud-based solutions, the healthcare industry has rapidly swung toward cloud adoption in recent years. The industry has acknowledged the economic advantages of the cloud’s subscription-based financial model over a traditional Capex-based approach. And healthcare IT professionals have done a good job in establishing the cloud’s strong security protocols and its ability to free up internal IT staff to work on strategic issues rather than focusing on help desk and first-line tech support.

“THE (TELEMEDICINE) SYSTEM IS NOTHING IF IT DOES NOT DELIVER VALUE TO THE BUSINESS”

Audit your IT infrastructure for its fit and alignment with new telemedicine requirements. While the vast majority of healthcare providers—even relatively small doctors’ offices—are WiFi-enabled, fewer of them have the ideal wireless infrastructure for reliable, secure and highly available services such as 2-way video conferencing. Remember that as your organization experiences positive results with initial telemedicine use cases, adoption will likely expand, increasing the need for scalable bandwidth and support for new kinds of endpoint devices.

Train, train and train some more. One undeniable goal within your strategic plan is to ensure widespread end-user adoption. Your training should not only help users—including patients—become comfortable with the technology, but it should help them see how telemedicine enhances their delivery of knowledge and expertise, rather than gets in the way of it.

Market the solution to your users. The onboarding process is key, and getting medical and non-medical staff to embrace telemedicine will require a marketing outreach program so people know what’s coming, how to utilize it and how to benefit from it. Social media, in-house communications tools, posters and lunch-and-learn workshops all can be part of a marketing outreach program to help spike adoption rates and speed time to value. Look for a telemedicine platform that offers marketing materials as part of the overall solution and deployment process.
Management challenges and best practices

Yes, you’ll feel really good once the system is installed, users are trained and telemedicine is tightly integrated into workflows and business processes. But wait: There still are important issues to consider and plan for after the system goes live.

Telemedicine systems management should be discussed in the strategic plan development process, and there are many essential aspects that must be addressed in other to avoid problems that can sink your telemedicine solution—with potentially big financial, operational and regulatory implications.

**Security is paramount.** Yes, that sounds like a “mom and apple pie” bromide, but it’s important to acknowledge that security risks are rising every day in healthcare, and telemedicine introduces new potential security threats. Ideally, your telemedicine solution will be designed with security as an essential element of the overall architecture on all levels—data, applications and infrastructure. Some ambitious telemedicine projects will support not only traditional desktop and notebook endpoints, but also smartphones, tablets, wearable technology and Internet of Things devices such as sensors and smart medical equipment.

Chances are your internal security staff and tools are already stretched tight, so be sure your telemedicine solutions provider has your back. Ask about their multilayered approach to security, their authentication technologies and their security policy management, as well as security incident event management.

Last and certainly not least, be sure your training programs stress the importance of good security hygiene for end users, such as password management, spotting phishing attempts and steering clear of social engineering efforts. This is essential in integrating patients—many of whom lack all but basic security features on their endpoints—into this process.

**Make a smart outsourcing decision for tech support.** As mentioned earlier, few hospitals—and even fewer doctors’ practices—have sufficient help desk resources. You should rely on the experience and skills of your telemedicine solutions provider to answer not only basic questions about applications and device usage, but also how to use the telemedicine system to integrate into medical workflows such as clinical documentation, EMRs and medical imaging. Using an experienced partner for tiers 1 and 2 tech support not only will enhance your ongoing systems monitoring and management, but it also will free up your precious internal IT resources to work on the more strategic aspects of the telemedicine solution.

**Conduct patient surveys.** This is a key way to understand if you are really meeting your goals, since improving patient engagement and enhancing their experience with your medical staff and services will undoubtedly be key metrics of your telemedicine solution.
**Integrate and automate.** A successful telemedicine solution won’t stand and survive on its own. The last thing you want is a silo solution, with telemedicine not integrated into other critical applications like EMR, PACS and vendor-neutral archives. You and your partner should be looking for new ways to increase interconnects among the telemedicine solution and other applications and workflows.

At the same time, you should look for ways to automate different telemedicine-related activities, perhaps initially with simple automation tools like scripts and runbooks, but eventually with machine learning and cognitive computing. Remember, you don’t have the personnel to manually handle all those repetitive tasks. Let automated systems do much of the work for you.

Even the most enthusiastic telemedicine supporters among healthcare IT professionals realize that their internal teams and in-house resources often are insufficient to make good on the promise of telemedicine. In most cases, they quickly realize that they need the expertise, experience and extra hands of a telemedicine solutions provider.
Of course, your telemedicine partner should possess the requisite technical skills in such areas as wireless infrastructure, endpoint devices, security, systems management and EMR integration. But while many potential partners understand the technology, far fewer have successfully planned, built, deployed and managed systems that are uniquely crafted to the specific workflows of different hospitals and doctors’ practices. The adage “no two are like” applies here, so your partner must have a commitment to flexibility and not try to force its rigid view of a telemedicine solution into the wrong environment.

eVisit, a trusted advisor in the telemedicine space, has successfully deployed and managed numerous telemedicine solutions across a wide range of use cases and customer requirements. Its solutions architects, deployment specialists and support teams come armed with a full array of both standard and customizable services that greatly enhance the chance for a successful project that meets—and often exceeds—healthcare providers’ goals.

Among the many services eVisit offers in the deployment and management stages of telemedicine solutions are:

- Technology evaluation and testing
- Physician, medical staff and healthcare IT training
- System design
- Marketing program development and rollout for user adoption
- Help desk support
- Development of new use cases and revenue streams
- Key performance indicator identification and development
- Patient portal development
- User feedback and system refinement
Conclusion

It’s been said that many IT projects fail before they are ever launched, and that certainly can happen in telemedicine if systems are not properly envisioned and planned. These systems also can falter if not enough attention is paid to ongoing monitoring and management of systems for such issues as performance, security, regulatory compliance, end-user adoption, financial milestones and usability testing.

Understanding the best practices spelled out in this paper will help give you and your organization a leg up in navigating a path to successful telemedicine programs. Be sure to identify, recruit and work closely with an experienced telemedicine solutions partner like eVisit to enhance your chance for success.

For more information on how eVisit can work with your organization on the successful deployment and expert management of a telemedicine solution, please go to www.eVisit.com