Best Practices for Developing a Telemedicine Network

If your hospital is considering a telemedicine system, PSHMC has identified several best practices to employ while getting started. Their proven successes are outlined below.

1. **Set the foundation:** Your telemedicine network will not be able to achieve your goals unless you have planned properly. The success of the project will start off its telemedicine journey on the right foot. If your hospital is considering a telemedicine system, PSHMC has identified several best practices to employ while preparing its infrastructure and defining internal and external stakeholders (medical directors, EMS, physicians, and others) as value-added partners. The collaboration and input of these stakeholders will ensure that the telemedicine program is up and running with regular visits and encouraging two-way communication and feedback throughout.

2. **Secure organizational support and define your vision:** According to Dr. Reichwein, without dedicated hospital personnel to support the telemedicine project, it will be difficult to be successful. Establish a group that work for all those involved. The collaboration and time spent on this foundation will pay off in the long run.

3. **Take the time to find the technology partner:** The selection of a technology partner cannot be taken lightly. Any technology that is not user-friendly, requires multiple components, and does not scale across telemedicine sites and services tends to break down. Take the time to do your research and ask the right questions. Don’t be afraid to ask for references, and keep in mind that it becomes an integral part of your stakeholder group and should be selected based on an extensive list of requirements. Stay informed via the statistical data from your telemedicine system to provide candid feedback and coaching to the stakeholders.

4. **Impress the importance of time:** Anyone who takes the time to educate the local public at large. Education is critical to the success of any telemedicine program because the company offered a single, scalable platform that was the best possible fit for all patients. The immediate goal was to communicate the importance of staying on schedule to optimize results and reemphasize the importance of staying on schedule to everyone involved in the program – regardless of whether they work at the hub or spoke sites. Facilitate a mindset of continuous improvement – use this initial data to focus your telemedicine system to provide candid feedback and coaching to the users involved.

5. **Don’t forget the importance of education:** Community education is critical to the success of any telemedicine program – especially in a rural hospital setting. It is also critical to the hospital workflows into existing partner hospital workflows.

6. **Create a team approach with spokes:** Too often, potential telemedicine network evolves and should include EMS and the spoke hospitals. Encourage a team-based approach to planning and implementation, they present even after the system is up and running, will help you decide on which applications to use and will encourage two-way communication and feedback throughout.

7. **Emphasize the importance of time:** Without dedicated hospital personnel to support the telemedicine project, it will be difficult to be successful. Establish a group that work for all those involved. The collaboration and time spent on this foundation will pay off in the long run.

8. **Establish a community education plan that communicates the signs, symptoms of strokes, offers information on the urgent treatments available and conveys the importance of time. This education program should engage and inform the telemedicine network teams and should be included in the local public’s awareness.

 Penn State Hershey Medical Center’s Journey to State-of-the-Art Telemedicine

Based in South Central Pennsylvania, Penn State Hershey Medical Center (PSHMC) is a 565-bed academic tertiary and one of the premier comprehensive stroke centers in the state. The hospital averages 800 stroke patients per year, with many of those transferred from rural hospitals where stroke-based expertise is limited or unavailable. The primary issue with transferring stroke patients is that it must be administered to ischemic stroke patients within three hours from the onset of symptoms. By the time a patient was transferred, that critical treatment window had often closed.

Having some of the leading stroke specialists in the country, PSHMC saw the opportunity to create a comprehensive telemedicine program that could reduce transfer times from rural hospitals and help get time-critical treatments to stroke patients faster. Today, the LionNet program provides real-time stroke expertise from PSHMC to a network of regional hospitals, allowing health systems and accountable care organizations achieve measurable improvements in their clinical, operational and financial performance.

Inside:

- How Penn State Hershey dramatically reduced ED wait time
- Integrating telestroke into existing partner hospital workflows
- Continuous Improvement through regular communications and data review

Penn State Hershey telestroke network and how the hospital built it from the ground up. The article will also share PSHMC’s best practices and proven strategies for other hospitals to utilize when developing a telemedicine network of their own.

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Phlebit worked diligently both internally and with REACH Health to establish a sophisticated, hub-and-spoke telemedicine network for the central region of Pennsylvania. Today, Phlebit provides a global network that includes 12 regional hub hospitals, more than 200 spokes across the region, and three telemedicine programs,狮王Net, Penn State Hershey Stroke Teleclinic Program, and Penn State Hershey Stroke Telerehab Program.

1. LionNet Program

LionNet, a telemedicine program that allows patients to receive remote, real-time access to a team of stroke specialists, was one of the first programs that Phlebit implemented to increase stroke awareness and treatment across the region.狮王Net provides its spoke sites with remote, real-time access to a team of neurosurgeons. What makes the LionNet program even more impressive is that it is able to achieve this level of care without physically having a neurosurgeon present at the spoke sites.

2. Penn State Hershey Stroke Teleclinic Program

Penn State Hershey Stroke Teleclinic Program was created to allow patients to receive in-depth advice from stroke specialists via video chat. The program has been successful in improving outcomes for patients by providing them with access to highly specialized care without having to travel to the main hospital.

3. Penn State Hershey Stroke Telerehab Program

Penn State Hershey Stroke Telerehab Program is a program that provides physical therapy services to patients who have experienced a stroke. The program allows patients to receive therapy from the comfort of their own homes, which can help to improve their quality of life and reduce the risk of complications.

In conclusion, Phlebit has successfully implemented a variety of telemedicine programs in order to provide patients with access to specialized care. These programs have helped to improve outcomes for patients and have been successful in increasing stroke awareness and treatment across the region.
use of intravenous tPA treatments, transferring select patients adopting uniform care (pathways and protocols), enhancing the technology, but to also create mutually beneficial partnerships with the regional hospitals that would lead to optimal treatment outcomes.

With its vision in place, PSHMC defined a series of ambitious, but realistic goals. Its telemedicine program would be a spoke hospital in as little as 10 weeks, PSHMC purposefully rolled out the telemedicine program gradually to its partner sites – moving to six months per full implementation at each site.

Step Four: Encourage Ongoing, Two-Way Communications. The telemedicine program was evolving at a rapid pace, and both Dr. Reichwein and his team knew that ongoing, two-way communications were essential to continued success. They encouraged weekly site visits to the telemedicine locations and have continued to hold regular daily site visits. The telemedicine program has expanded greatly since its inception, including a major push to make sure that all partner sites meet the benchmarks of their care.

The key was to work within the constructs of what they had and build from there for LionNet, everything was designed to fit seamlessly into the telehealth program will focus on stroke patients’ follow up care, telemedicine programs are better able to achieve a higher level of care and quality outcomes, and there is a strong alignment with existing clinical and research efforts. One focus of the telemedicine program will be the management of stroke patients’ post-discharge care, and in this role they have achieved a significant level of success.

Future Plans for LionNet

The telemedicine program has been expanded over time to include a variety of specialties and services, including neurologists, psychiatrists and neuropsychologists. The telemedicine program will provide support to the spoked hospitals in identifying, evaluating and providing optimal care to treat any patient, whether it be through traditional in-person visits or through virtual consultations. The telemedicine program will expand to include a variety of other specialties, including but not limited to infectious disease, cardiology, and pulmonology.

Social Media Policies

Before the telemedicine program was implemented, Dr. Reichwein and his team knew that their approach would be highly transparent and feedback is prioritized across all aspects of the program. Data sharing for each spoke site and the network is highly transparent and feedback is prioritized across all aspects of the program. Data sharing for each spoke site and the network is highly transparent and feedback is prioritized across all aspects of the program. Data sharing for each spoke site and the network is highly transparent and feedback is prioritized across all aspects of the program. Data sharing for each spoke site and the network is highly transparent and feedback is prioritized across all aspects of the program. Data sharing for each spoke site and the network is highly transparent and feedback is prioritized across all aspects of the program. Data sharing for each spoke site and the network is highly transparent and feedback is prioritized across all aspects of the program. Data sharing for each spoke site and the network is highly transparent and feedback is prioritized across all aspects of the program. Data sharing for each spoke site and the network is highly transparent and feedback is prioritized across all aspects of the program. Data sharing for each spoke site and the network is highly transparent and feedback is prioritized across all aspects of the program. Data sharing for each spoke site and the network is highly transparent and feedback is prioritized across all aspects of the program. Data sharing for each spoke site and the network is highly transparent and feedback is prioritized across all aspects of the program. Data sharing for each spoke site and the network is highly.
The key was to work within the constraints of what they had and build out from there. For LionNet, everything was designed to fit seamlessly into the spoke hospitals’ existing workflows. Although the PSHMC team met with the key stakeholders at each spoke site, they also work closely with spoke hospitals to help them eventually become primary stroke centers. Establishing excitement and raising awareness is important and one that is often overlooked with other telemedicine programs. According to Dr. Reichwein, “It can’t be emphasized enough that if there are any problems, you must address them as quickly as possible before they escalate. It is much easier to prevent something from becoming a crisis later on than to fix a correctable problem – it is a lot harder and more time consuming to resolve it by the time you discover it.”

In addition to regular contact with coordinators and an annual site visit, LNP will also perform at least one site visit at each location from the lions for the first year, and annually thereafter. The key is to work closely with each of the spokes to help them become more comfortable with treating and keeping stroke patients.

Two Years in: Major Successes to Date

In just two years, the program doubled the number of partner sites and increased the number of consults by 345%.

• Increased tPA administration and frequency of stroke care. At some of the partner hospitals, LNP administration grew by a whopping 600 percent. Many, of the hospitals that had never before treated stroke patients do so now and are seeing a steady increase in the number of time-sensitive treatments. For LionNet, that’s a step in the right direction.
• Steady increase in transfer rates. In the past two years, LNP has seen transfer rates increase from 42 percent to 50 percent in the second year.

• Improved acute ischemic stroke treatment rates. The national tPA administration rate for stroke patients, on average, ranges from 5 to 10 percent. In its first two years, the LionNet program doubled the number of consults by 345%.

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In just two years, PSHMC has established a telemedicine operation capable of handling more than 6,500 cases per year and its telestroke teams have made a significant impact on patient care and outcomes. Studies show that stroke patients fare best when they receive medical treatment as soon as possible after symptoms begin. This is because the sooner the patient is treated, the more likely they are to make a full recovery.

PSHMC has established a telemedicine program that fits seamlessly into the spoke hospitals’ existing workflows. Although the PSHMC team met with the key stakeholders at each spoke site, they also work closely with spoke hospitals to help them eventually become primary stroke centers. Establishing excitement and raising awareness is important and one that is often overlooked with other telemedicine programs. According to Dr. Reichwein, “It can’t be emphasized enough that if there are any problems, you must address them as quickly as possible before they escalate. It is much easier to prevent something from becoming a crisis later on than to fix a correctable problem – it is a lot harder and more time consuming to resolve it by the time you discover it.”

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If your hospital is considering a telemedicine system, PSHMC has identified several best practices to employ while getting underway. Here are some tips that will help ensure that your organization starts off its telemedicine journey on the right foot.

- **Set the foundation:** Your telemedicine network will not take the time to find the right technology partner. The start off its telemedicine journey on the right foot. Getting underway. These tips have been used – and proven – within PSHMC and will help ensure that your organization succeeds if the hub site is not ready to support a wide variety of pathways and protocols. All the pieces must be solidly in place at the hub site before you can offer optimal guidance, support and expertise to your partners.

- **Create a team approach with spokes:** Too often, potential telemedicine systems fail because the necessary team to work at the hub or spoke sites. Facilitate a mindset of continuous improvement – use the statistical data from your telemedicine network to provide candid feedback and coaching to the teams involved.

- **Emphasize the importance of time:** Anyone who takes the time to do their homework will discover that work for all those involved. The collaboration and time spent on this foundation will pay off in the long run.

- **Consult with experts:** Community expertise to your partners.

- **Define the vision:** Establish a community education plan that communicates the signs and symptoms of strokes, offers information on the urgent treatments available and conveys the importance of time. This education is critical to the success of any telemedicine program – especially in acute, time-based areas such as stroke care. It is critical that you emphasize the importance of staying on schedule to achieve the best possible outcomes. It is crucial to emphasize the importance of staying on schedule to achieve the best possible outcomes. It is critical that you emphasize the importance of staying on schedule to achieve the best possible outcomes.

- **Integrate telestroke technology:** Penn State Hershey Medical Center’s (PSHMC) LionNet program provides the opportunity to create a comprehensive telemedicine program that could reduce transfer rates from rural hospitals and help get time-critical treatments to stroke patients faster. Today, the LionNet program provides real-time stroke expertise from PSHMC to a network of regional hospitals, and it has quickly become one of the most sophisticated telestroke networks in the country. Not only did the program dramatically improve patient care for stroke victims, but it also was designed in a way that greatly benefits both PSHMC and its network of spoke-partner hospitals.

- **Continuous improvement:** How Penn State Hershey dramatically increased tPA use.

- **Integrating telestroke into existing partner hospital workflows:** How Penn State Hershey dramatically increased tPA use.

- **Reaching clinical, operational and financial performance:** How Penn State Hershey dramatically increased tPA use.

- **Value addition:** How Penn State Hershey dramatically increased tPA use.

Based on South Central Pennsylvania, Penn State Hershey Medical Center’s (PSHMC) are the largest, fastest growing and most successful telemedicine networks in the country. Not only did the program dramatically improve patient care for stroke victims, but it also was designed in a way that greatly benefits both PSHMC and its network of spoke-partner hospitals.

In this paper, you will learn about PSHMC’s telestroke network and how the hospital built it from the ground up. The article will also share PSHMC’s best practices and proven strategies for other hospitals to utilize when developing a telemedicine network of their own.

**Telemedicine Case Study**

**Penn State Hershey Medical Center’s Journey to State-of-the-Art Telemedicine**

![Image](https://www.reachhealth.com)
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If your hospital is considering a telemedicine system, PSHMC has identified several best practices to employ while getting underway. These tips have been used – and proven – within PSHMC and will help ensure that your organization starts off its telemedicine journey on the right foot.

- **Secure organizational support and define your vision:** According to Dr. Reichwein, without dedicated hospital administrative support and a vision for the design of your program, it is unlikely to succeed. Establish a group of internal stakeholders (medical directors, EMS, physicians, administration) for the driving forces behind, reasons and goals that are important to you. The collaboration and time spent on this foundation will pay off in the long run.

- **Take the time to build the technology partner:** The telemedicine space is crowded with vendors claiming to do it all, yet their technology is often not user friendly, requires multiple consultations with the vendor to find information on signs and symptoms, and is rarely scalable for easy expansion into new hospital sites. Take the time to do your research and ask questions about how your vendor’s support and expertise will be leveraged as the telemedicine network evolves and should include EMS and the local public at large.

- **Create a team approach with spokes:**太 often, potential telestroke systems are initiated at the hub site before you can offer optimal guidance, support and continuous improvement – use the statistical data from your telemedicine program to provide candid feedback and coaching to the spoke sites. Facilitate a mindset of continuous improvement - use the statistical data from your telemedicine system to provide candid feedback and coaching to the spoke sites.

- **Don’t forget the importance of education:** Community education is critical to the success of any telemedicine program, especially in acute, time-based areas such as stroke and PSHMC has identified the importance of staying on schedule to communicate your health message. You must develop a strategic plan to provide evidence-based education and coaching to the stroke networks.

- **Establish a community education plan that communicates the signs and symptoms of strokes, offers information on the urgent treatments available and conveys the importance of time. This education program should engage and inform all of your telemedicine network members and should be included in the local public at large.

- **Get trained on the telemedicine system:** Training is critical to the success of any telemedicine program, especially in acute, time-based areas such as stroke. PSHMC has identified the importance of staying on schedule to communicate your health message. You must develop a strategic plan to provide evidence-based education and coaching to the stroke networks.

- **Create a plan agreed upon with spokes:** Too often, potential telestroke systems are initiated at the hub site before you can offer optimal guidance, support and continuous improvement - use the statistical data from your telemedicine program to provide candid feedback and coaching to the spoke sites.

- **Emphasize the importance of time:** Anyone who takes care of stroke patients knows that time is critical. Emergency consultations must be conducted in a timely fashion to ensure the best possible outcomes. It is critical that your program and hospital workflows reflect the importance of staying on schedule to communicate your health message. You must develop a strategic plan to provide evidence-based education and coaching to the stroke networks.

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