

## Nurses Leading the Transformation of Patient Care Through Telehealth.

Lori Yesenofski MSN, RN, CCRN, CTC  
*Lehigh Valley Health Network, Lori.Yesenofski@lvhn.org*

Sharon Kromer BSN, RN, CCRC, CTC  
*Lehigh Valley Health Network, Sharon.Kromer@lvhn.org*

Kim S. Hitchings MSN, RN, NEA-BC  
*Lehigh Valley Health Network, kim.hitchings@lvhn.org*

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## **Transforming Patient Care Through Telehealth**

*Lori Yesenofski, MSN, RN, CCRN, CTC, Sharon Kromer, BSN, RN, CCRC, CTC, Joseph Tracy, MS, Kim Hitchings, MSN, RN, NEA-BC*

### **PART 1**

*If you want a telehealth program to succeed, you need nurses at both ends of the connection to lead and coordinate the telehealth service.*

Joseph Tracy, Vice President, Telehealth Services, Lehigh Valley Health Network

The essential role of nurses in leading, developing and improving Lehigh Valley Health Network (LVHN) telehealth services and programs was a key reason the organization was selected to receive the 2013 Magnet Prize®. The Prize recognizes innovative nursing programs and practices in American Nurses Credentialing Center Magnet™-designated organizations. Telehealth at LVHN is innovative from two perspectives: 1) Implementation of telehealth spanning many years and for a wide variety of services; and, 2) Novel structures, processes and execution methods within individual telehealth programs. This two part manuscript details the roles nurses play and the innovations within LVHN telehealth; it also discusses essential ingredients to design, implement and evaluate telehealth services. The intent is to share a variety of telehealth models and expertise for other organizations to consider and perhaps incorporate within their own setting to enhance patient care.

### ***Value of Telehealth***

According to the American Telemedicine Association, Telemedicine and telehealth both describe the use of medical information exchanged from one site to another via electronic communication to improve patients' health status.<sup>1</sup> A rationale for telehealth can be traced to the landmark publication, *Crossing the Quality Chasm*, which stated that to achieve substantial improvement in quality, information technology must play a central role in health care system redesign.<sup>2</sup>

Over the past number of years, telehealth has been a key component to ensure access to health care services in isolated geographic and underserved areas.<sup>3</sup> In 2012, 308,000 patients around the world were remotely monitored for heart failure, chronic obstructive pulmonary disease, diabetes, hypertension and mental health conditions. In just four years, the numbers are expected to swell to 1.8 million.<sup>4</sup>

Within the United States, as the Accountable Care Act is more fully implemented, there will be a significant increase in the number of individuals with health care coverage, thus impacting an already over-burdened healthcare system. Telehealth has the potential to ease this stress and reduce costs through new applications that streamline care delivery and remote monitoring to reduce use of emergency departments and hospital readmissions.<sup>5</sup> A clear alignment exists between telehealth and the Institute for Healthcare Improvement (IHI) Triple Aim goals of better individual health care, better population health and lower costs.<sup>6</sup> Indeed, all of the opportunities in telehealth can dramatically affect access, quality and efficiency of the health care system.<sup>3</sup>

### ***LVHN Telehealth Services***

#### **Origination**

The first telehealth service – TeleHomecare -- at LVHN was initiated in 2002. This program was initially conceived and administered by LVHN Home Health Services staff. The intent was and currently is to augment care provided by visiting home care nurses; it was not designed to replace scheduled visits to the home. Through remote monitoring by nurses of vital signs and other critical

information, early interventions may prevent emergent care needs, thus preventing unnecessary emergency department visits and re-hospitalizations.

The second LVHN telehealth initiative was the Advanced Intensive Care Unit (AICU). The originators of the AICU were bedside physicians, nurses within the critical care service line and information service professionals. When it opened in 2004, it was one of the first tele-intensive care units (ICUs) in the country. The AICU is a centralized, remote monitoring department, where a team of intensivists and critical care nurses work collaboratively utilizing the latest in electronic medical record information, remote monitoring technologies and two-way audio/video equipment. Like TeleHomecare, the AICU augments care provided at the bedside; in essence, it is a 'second layer' of monitoring and clinical decision-making. The AICU colleagues work remotely with the bedside clinicians proactively to provide medical interventions and address the unique needs of critically ill patients as quickly and completely as possible. Steps that should be considered in developing a TeleICU are detailed in a recent article by Krukltis, Tracy and McCambridge.<sup>7</sup>

### **Formation of a Telehealth Services Department**

As the AICU began operations, our organization's chief medical officer recognized the potential to develop other telehealth services that would have a dramatic and positive impact upon health care. His foresight and commitment were due, in part, to his past experience as a telehealth provider. This individual recruited an experienced telehealth professional as a vice president (VP) to create and lead a new telehealth services department at LVHN. In designing the new telehealth department and services, the VP knew three major components were necessary for success: administrative; clinical; and, technology/informatics.

### *Administrative*

Upon his hire, the VP stated his belief that the department should be aligned with strategic clinical planning. As a result, the telehealth services VP reports directly to the LVHN Chief Strategy Officer; department colleagues are those who oversee such services as business development, the care continuum, community health and health studies, and payer relations.

From the beginning through the present, the only administrative employee is the VP, who manages and coordinates operational planning, establishment, execution and evaluation of the programs and services delivered through telehealth technologies. Knowledge required for the position includes, but is not limited to: telehealth and telecommunication technologies; business development; contracting; and, current and proposed legal and regulatory issues impacting healthcare and telehealth.

### *Clinical*

With 20 years of telehealth experience, the VP firmly believes that Telehealth is a clinical program; he is fond of saying, “It is not about the technology, but rather, about people who use the technology to care for patients.” True to his clinical service focus, the VP’s first hire for the department was a nurse, followed by two additional nurses, all of whose titles are clinical coordinators.

Typically, coordinators in telehealth have backgrounds in business and information technology. In a published article detailing successful models for telehealth, none of the key points address the need for a clinical focus or the incorporation of nurses within the model.<sup>8</sup> The LVHN telehealth structural and care delivery models have a distinct clinical focus with nursing roles being paramount to the success of the models.

All three LVHN clinical coordinators are registered nurses (RNs) with a minimum of a baccalaureate degree. It was intentional the coordinators are seasoned nurses with a strong clinical background representing varied clinical specialties, such as critical care, medical-surgical, and women and children services. In addition, one of the clinical coordinators has an undergraduate degree in information technology.

The clinical coordinators are responsible to support the development, implementation, and evaluation of the telehealth programs within and external to LVHN. More specific duties are listed in Table 1. The department also employs a secretary. Thus, nurses are the mainstays of the centralized department and in service design and development.

### *Technology and Informatics*

Despite a clinical service focus within LVHN telehealth services, the need for personnel knowledgeable regarding software and hardware was recognized as necessary. Although not employees within the telehealth department, many staff members from the Information Services (IS) department are designated as consultants for telehealth technology implementation and support.

A critical consideration within telehealth services is the need for encrypted and secure connections to protect health information, and the exchange of that information between the telehealth sites. To address this challenge, the LVHN telehealth staff has developed a collaborative relationship with IS staff that has expertise in designing interactive audio/video communications and secure networks to support telehealth services.

### **Types of Technologies**

The two major types of telehealth technologies are ‘Store and Forward,’ and ‘Interactive Audio/Video.’

Store and forward technology sends patient information to a provider for their review at a later time.

This medium includes digital images, such as photographs and radiology studies, as well as electronic files of documents within a patient’s medical record.

Interactive Audio/Video is used to provide a live, virtual encounter between a patient and healthcare provider. The format can be as simple as two-way audio/video conferencing with visualization and voice communication between patient and provider. More robust consultations utilize peripheral devices such as electronic stethoscopes, video otoscopes, pharyngoscopes and examination cameras capable of amplifying things as minute as eye pupils or a skin rash.

The clinical purpose and need of each individual telehealth program drives the technology utilized. For example, the intent of the LVHN TeleBurn<sup>SM</sup> service is to appropriately triage a burn patient located at a remote site. Thus, our burn surgeons and advanced practice nurses simply need to see digital photographs of the wound. In contrast, our Infectious Diseases telehealth program (TeleID) provides formal consultation between an Infectious Diseases specialist and patient in another facility to determine appropriate course of patient treatment. To achieve this purpose, interactive video, along with several electronic medical instruments, are necessary to complete a full patient history and physical examination.

### **LVHN Telehealth Services**

There are currently 15 telehealth services offered by LVHN in a wide variety of clinical areas. Table 2 offers a brief overview of each of these services. The programs were developed sporadically over a 12 year period, prompted by identified opportunities and needs. For example, limited specialty providers in

remote areas drove initiation of the Obstetrics and Maternal Fetal Medicine. The Psychiatric Emergency Evaluation Services telehealth program was designed to increase access to LVHN mental health providers, as well as improve provider efficiency through reduction in travel time between LVHN facilities. The impetus for the TeleNeuroScience service for movement disorder patients was increased comfort and convenience for skilled care residents, as well as the ability to obtain key clinical information from the patients' direct care nurses. An LVHN internet website details telehealth operations and clinical services.<sup>9</sup>

### **Outcomes and Implications**

Outcomes associated with defined services are detailed in Table 2. Telehealth Services at LVHN facilitate the ability to share specialty healthcare across a broad patient population. The added benefits allow patients to stay in their own community to receive expert care, lessening the cost and burden of travel for the patients and families. It also decreases the need for patients to be transferred from a small community hospital to the larger tertiary care facility for specialty care. Provider productivity is optimized by eliminating the need to travel to see patients. Finally, the medium stimulates interprofessional and inter-facility communication, promoting collaboration and resultant improved patient outcomes.

*"The LVHN telehealth programs are powerful models to be implemented nationally and globally, as a transformative new care delivery system." Karen Drenkard, PhD, RN, NEA-BC, FAAN, ANCC Executive Director<sup>10</sup>*

## **Part 2**

### **The Birth of a Service**



Foremost when considering development of a specific telehealth program is its relation to the organization's mission and fundamental priorities. The mission of LVHN speaks to providing "...advanced and compassionate care of superior quality and value, supported by education and clinical research" to the community. As a regional center of excellence in defined services, such as, but not limited to, cancer, heart care, neuroscience, trauma, and burn, the LVHN community covers a wide geographic area; this includes many community, non-academic hospitals, health centers, and skilled care and rehabilitation facilities. Thus, telehealth technology has facilitated our mission to "heal, comfort and care for our community", through the provision of advanced and specialized care to a widely dispersed population that otherwise would not have ready access to various services.

Another factor to consider in beginning a telehealth specialty program is the organization's fundamental priorities. For LVHN, these priorities are: better health, better care and better cost. Telehealth services enhance each one of these priorities.

An organization must also have the expertise and resources to develop and support a telehealth program. The LVHN telehealth programs focus on those care services in which we have demonstrated expertise and are in demand by an external organization or by an LVHN facility separated geographically from the site providing the service. Resources needed to build a successful telehealth program include, but are not limited to, human, technical and financial. For example, nurses, physicians, other clinicians and administrators must champion the effort; the technology, coupled with a savvy information services staff must support the program; and, financial resources must be available to fund the service being developed. LVHN has utilized budgeted operational monies, philanthropic funds and grant dollars for its telehealth services.

Sometimes, a new telehealth service is inspired by one that is already in place. For instance, the Chief Nursing Officer at LVHN thought that the TeleWound program LVHN developed for external Skilled Nursing Facilities (SNF) could be used to support wound care within LVHN's own facilities. The CNO brought this to the attention of a Telehealth Clinical Coordinator and planning for an LVHN internal telewound pilot program began immediately. The pilot program was aimed at triaging/staging and more efficiently caring for patients who had pressure ulcers upon admission to the hospital. The planning and implementation of this new program was completely nurse driven. The planning team included nurse administrators, RN telehealth clinical coordinators, certified wound care nurses, clinical nurses on two inpatient units that would be the first to trial the program, and a nurse researcher. Information Services staff were utilized to implement the necessary technologies for the pilot program.

## **Key Considerations**

### *Reimbursement*

Familiarity with legal and regulatory issues related to the implementation and delivery of Telehealth Services is essential, especially in the area of reimbursement. Payment for telehealth services is often the biggest barrier to creating a sustainable telehealth program. Collaboration between healthcare professionals, payers (both public and private) and sometimes legislators affords opportunities to affect change in regulation and policy issues impacting reimbursement for telehealth services. There are three major areas of concentration with regard to reimbursement: Medicare, Medicaid, and commercial insurance.

Medicare reimburses providers for many different telehealth services. However, there are eligibility criteria that must be met to obtain reimbursement for those services. Examples include: the originating site must meet the CMS definition of rural; only select types of providers are eligible; and, the service

must be provided in an eligible location. A helpful CMS resource is the *Telehealth Services Rural Health Fact Sheet Series*.<sup>11</sup> Another resource, The Robert J Waters Center for Telehealth and eHealth Law (CTeL), produces “checklists” for Medicare reimbursement regarding both the allowable professional and originating site fees.<sup>12</sup>

Medicaid reimbursement for telehealth services differs by state. The state Medicaid office is the resource to determine if reimbursement for telehealth services exists and if so, the types of services covered. At present, 39 state Medicaid programs pay for telehealth in some fashion.<sup>12</sup>

Reimbursement by commercial insurers also varies by state. Currently, 21 states have passed legislation requiring private insurance coverage for telehealth.<sup>13</sup> Interestingly, some commercial insurers do not pay for telehealth services at the same rate as in-person visits.

### *Telehealth Advocacy*

To stay current with telehealth legislative initiatives, organizations with telehealth services should consider becoming members of the Robert J Waters Center for Telehealth and eHealth Law (CTeL) and the American Telemedicine Association (ATA). The Center for Connected Health Policy, one of the National Telehealth Resource Centers funded by the federal Health Resources and Services Administration, is another organization that can be accessed for legal and regulatory issues related to telehealth. Due to recent changes in lobbying laws and documentation requirements, it is important to alert organizational government affairs professionals before contacting and working with legislators on telehealth issues.

### *Telehealth Service Contracts*

Once a need and a demand for a telehealth service are identified between an originating and distant site, a series of agreements (contracts) should be executed before any service can begin. These agreements should be addressed and negotiated up-front to get the process started and avoid any misunderstandings as the service develops. Planning discussions regarding the telehealth service should continue as the legal teams work to finalize the agreements. Table 3 details the types of LVHN agreements executed and utilized.

### *Licensure of Physicians and Nurses*

There are federal and state regulations in place for physician and nursing interstate licensure portability. These regulations offer guidance to practice telehealth across state lines. The federal guidelines can be found on the Health Resources and Service Administration website, referencing the Special Report to the Senate Appropriations Committee: Telemedicine Licensure Report.<sup>14</sup>

In 2000, The National Council of State Boards of Nursing launched an initiative to expand the mobility of nurses within the nation's healthcare delivery system. The Nurse Licensure Compact (NLC) allows nurses a multi-state license to facilitate practice in their home state as well as other states. Currently, there are 24 states that participate in the NLC.<sup>15</sup> At present there is no physician license compact, but there are a small number of states which allow physicians to practice telehealth across state lines with a limited license and specific restrictions. Also, the Federation of State Medical Boards is now considering the development of an Interstate Medical Licensure Compact for telehealth.

### *Anti-Kickback and Stark Statutes*

Two laws often associated together are the Anti-Kickback Statute and Stark Law. While they are both important for telehealth, the one of most concern to telehealth professionals is the Anti-Kickback Statute. This statute prohibits offering, paying, soliciting or receiving anything of value to draw or

reward referrals or generate federal health care program business. Significant criminal and civil penalties may incur with violations of the Anti-Kickback Statute.<sup>16</sup> Please consult with legal counsel to insure that your telehealth program complies with these laws

The Stark Law prohibits physicians from referring Medicare patients for health services to an entity with which the physician (or immediate family member) has a financial relationship, unless an exception applies. It also prohibits the designated health services entity from submitting claims to Medicare for services resulting from a prohibited referral.<sup>17</sup> There are civil penalties associated with violations of the Stark Law.

#### *Privacy and Security - HIPPA and HITECH*

The confidentiality and privacy of all patient protected health information that is passed or transmitted between parties via telehealth needs to use and maintain reasonable and sufficient security procedures. The purpose is to ensure all transmissions of protected health information are authorized as required under the Privacy Standards and the Security Standards of the Health Insurance Portability and Accountability Act (HIPAA) of 1996 and its regulations Subtitle D of the Health Information Technology for Economic and Clinical Health (HITECH) Act.<sup>18</sup> Table 4 relates telehealth privacy and security factors which must be considered in developing a telehealth service.

#### **Implications for Nursing**

The benefits to nursing of the LVHN telehealth programs have been many and are illustrative of all domains within the Magnet® Model.

#### *Transformational Leadership*

This domain is illustrated by such things as: nurses as the sole professional staff members in the centralized telehealth department; nurses of varying roles and levels, within and external to LVHN, involved in conception and as leaders for the majority of telehealth programs; and, for all telehealth services, nurses as active members of the clinical planning and implementation work groups and intimately involved in the ongoing development and evaluation of the service.

### *Structural Empowerment*

The Telehealth clinical coordinators and LVHN nurses on the various telehealth program workgroups have established robust partnerships with remote hospitals, rehabilitation and skilled nursing facilities, physician office practices, and a variety of other community services. The Telehealth clinical coordinators and AICU nurse manager are active members of the American Telemedicine Association and several associated special interest groups: Home, Telehealth and Remote Monitoring; Telehealth Nursing; TeleICU; and, Pediatric Telehealth.

The clinical coordinators participated in on-line classes with colleagues from throughout the world through the University of Alaska to become Certified Telehealth Coordinators. A particularly unique demonstration of an LVHN nurse who has influenced a community group, prompting patients and families to travel hundreds of miles for care at LVHN, is one of our burn nurses; through our TeleBurn<sup>SM</sup> program, this RN assures culturally appropriate care to the Plain community. She has greatly enhanced the image of nursing among this population.

All telehealth programs promote lifelong professional learning, role development and career advancement. For example, nurses who work in the AICU are required to maintain hours working as direct care nurses in one of our seven ICUs; their clinical competence adds credibility to their role when

in the AICU consulting with their interprofessional colleagues. At the same time, their AICU experience offers ongoing professional learning and role enhancement. The nurses in remote locations who present TeleWound, TeleID and TeleNS cases, using defined templates and criteria, undergo extensive training by the telehealth clinical coordinators in the defined clinical specialty. Finally, every time nurses in the internal clinical settings and the field consult a defined telehealth service for their patients, they gain enhanced professional knowledge.

Designated telehealth services are frequently demonstrated at a wide range of community events. The individuals who offer these presentations are often nurses, either solely or in collaboration with interprofessional colleagues. A final example of this Magnet model domain is that the LVHN TeleBurn<sup>SM</sup> (finalist) and AICU (recipient) programs have been honored with Health Forum, of the American Hospital Association, Innovator Awards. Nurses involved in these two programs were among those formally receiving the awards.

### *Exemplary Professional Practice*

Interdisciplinary collaboration and collegial working relationships within and among disciplines are demonstrated via the roles of the telehealth clinical coordinators and, by nurses in varying roles and levels leading and serving as active participants on all telehealth service planning and implementation workgroups, as well as in the direct delivery of care.

### *New Knowledge, Innovations, & Improvements*

Nurses involvement in research is illustrated by nurses as members of the research team investigating outcomes associated with the AICU; a subsequently published article, with nurses as co-authors, became

and remains a seminal work. In addition, nurses have offered posters and oral presentations at a wide variety of regional, national and international nursing and healthcare professional meetings presenters.

### **Telehealth Moving Forward**

In his first public speech as the Administrator of the Centers for Medicare and Medicaid Services, Dr. Donald Berwick talked about quality improvement and said “every system is perfectly designed to achieve exactly the results it gets.”<sup>19</sup> Telehealth is not immune to this concept. In fact, one will get out of a telehealth program exactly what one puts into it, in terms of time spent on processes, workflow and the selection of equipment. A good telehealth program takes time to develop, because it is more about people, process and workflow than technology. The technology is a must, but it is simply a tool that aids in the ability to provide quality care at a distance, while ensuring patient safety.

In the near future, telehealth programs will continue to morph, utilizing new and different types of technologies to support virtual patient care at a distance. Prompted by Accountable Care Organization models and Medicare Shared Savings Programs, there will be an increased use of remote patient monitoring for those with chronic disease to prevent hospital admissions. There will also be more direct to consumer services as home-based technologies evolve, as well as more mobile applications for wellness and patient care activities. In this high tech world, geography will not limit receipt of high quality health care services.

### **Table 1**

#### **LVHN Telehealth Clinical Coordinator Responsibilities**



Serve as primary liaison to clinical staff
Assist clinicians with development of telehealth applications and programs
Collaborate to conceptualize and develop clinical telehealth applications
Train LVHN and remote partner site nurses, physicians and care extenders on the use of telehealth equipment and in telehealth clinical development
Assist clinical departments with developing educational programming that can be broadcast between LVHN campuses or to remote locations
Create clinical protocols, guidelines and policies/procedures for each telehealth service
Develop reports to document usage, satisfaction, quality review, and other appropriate statistical information
Be knowledgeable of all public and private sector policies that impact telehealth
Work to improve efficiency, productivity and control of clinical telehealth activities
Participate in educational programs sponsored by telehealth resource centers and a minimum of two American Telemedicine Association Special Interest Groups

**Table 2****LVHN Telehealth Services and Outcomes**

<b>Service</b>	<b>Outcomes</b>
Advanced Intensive Care Unit (AICU) <ul style="list-style-type: none"> <li>• Located off-site from hospitals</li> <li>• 7 pm – 7 am daily</li> <li>• Staff -- 1 intensivist, 3 critical care nurses and 1 clerical assistant</li> <li>• Direct feed between most bedside devices and medical record</li> <li>• Interactive two-way audio and video links to each room</li> </ul>	2004 – 20 <sup>13</sup> : 72,552 patients  31 % relative mortality risk reduction and significant decrease in the use of mechanical ventilation <sup>20</sup>  Additional 90 minutes in direct patient care, per nurse, 12-hour shift  Collaboration and mentoring between bedside nurses and AICU staff
TeleHomecare	2003 – 2013: 8,273 patients

<ul style="list-style-type: none"> <li>• 80 remote monitors</li> <li>• Allows early intervention to prevent emergent care needs</li> </ul>	
<b>TeleBurn<sup>SM</sup></b> <ul style="list-style-type: none"> <li>• Uses digital cameras, an imaging database, PCs, and smart phones to provide emergency assessments for burn patients</li> </ul>	2006 – 2013: 2,820 patients; 36% transferred to LVH Regional Burn Center; 33% seen in LVH Burn Recovery Center; 16% remained in local area
<b>Obstetrics and Maternal Fetal Medicine (MFM)</b> <ul style="list-style-type: none"> <li>• Ultrasound interpretation for high risk patients by board-certified MFM specialists; genetic counseling</li> </ul>	2011 – 2013: 34,952 ultrasound interpretations  2009 – 2013: 1,795 genetic counseling services
<b>Psych Emergency/Evaluation Services (PES)</b> <ul style="list-style-type: none"> <li>• Uses high definition videoconferencing to evaluate adult and adolescent emergency patients and, daily outpatient case conferences</li> </ul>	2009 – 2013: 4,465 emergency patient evaluations
<b>TeleInterpreter Services</b> <ul style="list-style-type: none"> <li>• Uses high definition video via electronic tablets and larger video devices</li> </ul>	2008 – 2013: 2,348 patient encounters  Reduction in interpreter service costs
<b>School-Based Telehealth</b> <ul style="list-style-type: none"> <li>• Uses interactive video, electronic stethoscopes, and a video scope system to present cases to physician/nurse providers</li> </ul>	2010 – 2014: 257 students evaluated in 5 elementary schools  60% able to return to class after telehealth encounter
<b>TeleInfectious Diseases (TeleID)</b> <ul style="list-style-type: none"> <li>• Uses electronic stethoscopes and patient exam cameras via high definition video conferencing to infectious diseases specialists</li> </ul>	2011 – 2014: 800 consultations conducted at 3 community hospitals and 1 rehabilitation facility  93% of cases remained in local facility for treatment
<b>TeleParkinson's</b> <ul style="list-style-type: none"> <li>• Uses high definition videoconferencing to provide ongoing evaluation to patients with Parkinson's disease at a continuing care retirement community</li> <li>• Facility nurses present patients using specific protocols and the Unified</li> </ul>	2011 – 2014: 80 encounters conducted  Elimination of patient transport for physician office visit, increasing patient comfort  Consulting neurologist gains valuable information from patient's primary nurse

Parkinson's Disease Rating Scale (UPDRS)	
<b>TeleStroke</b> <ul style="list-style-type: none"> <li>• Uses high definition videoconferencing systems to complete NIH Stroke Scale Assessment</li> </ul>	2012 – 2014: 30 consults completed at 3 community hospitals
<b>LVHN BabyCam</b> <ul style="list-style-type: none"> <li>• Uses secure internet connection to allow parents and other approved individuals to view their baby in the LVH neonatal ICU</li> </ul>	2012 – 2014 <ul style="list-style-type: none"> <li>• 151 babies enrolled</li> <li>• 225 family members utilized service</li> <li>• 2,001 hours of logged viewing time</li> </ul> Verbalized parents and family comfort in being able to see their baby when unable to be physically present  Expanded from 9 to 44 cameras
<b>TeleWound-Internal and External Services</b> <ul style="list-style-type: none"> <li>• Uses digital cameras, an imaging database and PCs to provide wound and pressure ulcer assessments by certified wound nurses in remote rehab and skilled nursing facilities, and inpatient settings</li> </ul>	Internal -- Improvement of work flow efficiencies in the inpatient setting  External -- Elimination of patient transport for office visit, decreasing transportation costs and increasing patient comfort
<b>TeleTrauma</b> <ul style="list-style-type: none"> <li>• Secure transmission of radiological images during transfer of a patient to LVH trauma center</li> </ul>	Enhanced time to treatment and reduction of repeat imaging studies

**Table 3**

### LVHN Telehealth Service Agreements

<b>Agreement</b>	<b>Description</b>
Master Agreement	Contains all standard contract language found in any telehealth agreement, without addressing a specific clinical service. Facilitates addition of specific clinical services through schedules (amendments) to the Master Agreement. Does not include financial terms.
Telehealth Schedules	Developed after executing Master Agreement as an amendment. Describe

(Amendments)	specifics of an individual clinical service. Includes financial terms.
Telehealth Credentialing and Privileging Agreement	Separate agreement required by CMS to allow for delegated credentialing and privileging for telehealth originating site providers, for services which require credentialing and privileging. <sup>21</sup> Medical staff bylaws of the originating site may need to be modified to allow for this type of credentialing.

**Table 4**

**Telehealth Privacy and Security Factors for Consideration**

<b>Consideration</b>	<b>Actions</b>
Image/video retention policy to govern how images/videos are stored	If images and video are recorded for certain purposes, such as quality assurance or retention in the medical record, consult an attorney for required actions.
Modifications to the Consent for Treatment	Include that images (e.g., pictures) and/or video may be used during the course of treatment.
Protection of patient privacy	Include within Telehealth policies and procedures that everyone present in an interactive telehealth encounter must be identified at both sites.

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