D.7 TELEHEALTH OPERATIONS MANUAL

VHA Telehealth Services

Clinic Based Telehealth Operations Manual

Clinical Video Telehealth
Store-and-Forward Telehealth

Revised July 2014

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Department of Veterans Affairs
PATIENT CARE SERVICES

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CHAPTER 1: Purpose, Development Process and Audience

Purpose

The purpose of the Clinic Based Telehealth (CBT) Operations Manual is to provide standard operational guidance and resources to implement, operate and monitor quality Clinic Based Telehealth services that are safe and effective. The manual will describe the prerequisites and critical success factors for providing these services at VA Medical Centers (VAMCs) and Community Based Outpatient Clinics (CBOCs), other VA sites of care, or, where applicable, non-VA sites of care (federal and non-federal), within the framework of the National, VISN or VAMC Telehealth strategic plans for Telehealth. The content and tools therein are required to serve as a resource to improve and expand the delivery of care via Telehealth and ensure the efficiency, quality and sustainability of these services.

The Clinic Based Telehealth Operations Manual will assist VA staff to integrate practices and procedures used in VHA Telehealth programs for the benefit of patients and practitioners. This integration of processes and procedures applies to establishing a new Telehealth service and operational standards for an existing Telehealth service. The Clinic Based Telehealth Operations Manual includes links to numerous resource, support and training materials. Additional resources providing support material for this manual are identified at the end of each section.

The Operations Manual is meant to complement existing VHA clinical and administrative Directives and guidelines. It provides sufficient detail for the intended audience to gain an understanding of the complex components of developing and managing Telehealth programs. The Operations Manual also contains many links to additional training, tools and resources which, *if fully reviewed and used/completed by the appropriate staff*, supplement other requirements to ensure they are competent and able to successfully plan, deploy and manage Telehealth programs within the scope of their practice/authorization.

Development Process

Telehealth leaders from the 21 Veteran Integrated Service Networks (VISNs) comprised the development committee for this Operations Manual with oversight and leadership from the Telehealth Training Centers, within the national VHA Telehealth Services. Content was developed with the underlying goal being *to provide the greatest amount of relevant information in the least amount of time*. Final reviews were completed by key staff within VHA Telehealth Services prior to approval and publication.

Audience

Although much of the content of this Operations Manual may be pertinent to Telehealth operations outside of VHA, this document is a resource developed solely for internal VHA Telehealth programs, with the intended audience being VISN Telehealth leadership, Telehealth coordinators, Telehealth practitioners and VHA staff who provide management and/or support to Telehealth Programs.

CHAPTER 2: Clinic Based Telehealth - Introduction and History

Introduction to Clinic Based Telehealth

Operating the nation's largest healthcare system, the Department of Veterans Affairs' (VAs') Veterans Health Administration (VHA), uses a wide variety of communication and information technologies to ensure excellence in the health care it delivers to our nation's Veterans. New information technologies are revolutionizing health care and the VA has been recognized by the Institute of Medicine as a leader in using these technologies to improve the quality of its care delivery.

The primary focus of this Operations Manual is Clinic Based Telehealth activities, which typically occurs between two clinical settings. The term Clinic Based Telehealth (CBT) applies to the use of Clinical Video Telehealth (CVT) and Store-and-Forward Telehealth (SFT) modalities, and other technologies to provide clinical care and patient health education in circumstances where distance separates those receiving services and those providing services. Information is exchanged from one site to another, alleviating the constraints of time, distance and cost. Specifically, Clinic Based Telehealth involves a patient site (originating site) and a provider site (distant site). Clinic Based Telehealth is most commonly implemented between:

- Two VA Medical Centers (VAMCs).
- VAMC and a Community-Based Outpatient Clinic (CBOC) or Primary Care Telehealth Outreach Clinics (PCTOC).
- Two CBOCs.
- Telehealth activity between VA Centers of Specialized Care.
- Provider site into the Veteran's home, Community Living Centers or contract nursing homes.
- Providers teleworking from their homes/Hub sites to VAMCs, CBOCs, VA Centers of Specialized Care, Veteran's home, Community Living Centers, and contract nursing homes.

Any of the above can take place between VA sites of care within the same VISN or between VISNs. Telehealth programs also exist between VA sites of care and Non-VA sites of care, including Clinical Video Telehealth into Veterans' homes and contract nursing homes.

The two types of Clinic Based Telehealth (CBT) services are: 1) Clinical Video Telehealth and, 2) Store-and-Forward Telehealth. The modalities are defined as follows:

- Clinical Video Telehealth (CVT) –the use of real-time interactive video conferencing, sometimes with supportive peripheral technologies, to assess, treat and provide care to a patient remotely. Typically, CVT links the patient(s) at a clinic to the provider(s) at another location. CVT can also provide video connectivity between a provider and a patient at home. CVT encompasses a wide variety of clinical applications, such as specialty and primary care.
- Store-and-Forward Telehealth (SFT) –the use of technologies to asynchronously acquire and store clinical information (e.g., data, image, sound and video) that is forwarded to or retrieved by a provider at another location for clinical evaluation. SFT in VA uses a clinical consult pathway and VistA Imaging in conjunction with a Telereader to provide screening, diagnosis and treatment services where time and distance separate the patient and provider.

Clinic Based Telehealth services are designed to achieve:

- Increased capacity.
- Improved access to primary and ambulatory care.
- Increased access to specialist consultations.
- Reduced waiting times.
- Decreased fee-based care costs.
- Decreased Veteran travel.

History of Clinic Based Telehealth

VHA's Telehealth Services, within the VHA Office of Patient Care Services, was established in July 2003 to support the development of new models of care in VA using leading edge health information technologies to address the pressing health needs of Veterans. Telehealth in VHA is defined as:

> ***"The use of Telehealth technologies to provide clinical care in circumstances where distance separates those receiving services and those providing services. The value VA derives from Telehealth is not in implementing Telehealth technologies alone, but how VA uses health informatics, disease management, care/case management and Telehealth technologies to facilitate access to care and improve the health of Veterans with the intent to provide the right care, in the right place, and at the right time."***

This intent is precisely VHA Telehealth Services' mission. The vision is to improve quality, convenience and access for patients to receive care via the use of health informatics, Telehealth and disease management technologies that enhance and extend care, and case management.

VHA Telehealth Services is responsible for Telehealth implementation throughout VA. Telehealth Services addresses clinical, technical and business issues to ensure Telehealth programs are safe, cost-effective and sustainable to meet the needs of Veteran patients.

In developing Clinic Based Telehealth, VHA Telehealth Services has focused on the needs of patients as the central driver to prioritize areas of care. Consequently, the *first standardized applications* of CBT in VA were:

- TeleMental Health (Clinical Video Telehealth application, 2003)
- TeleRehabilitation, to include Polytrauma Telehealth (CVT application, 2005)
- TeleRetinal screening (Store-and-Forward Telehealth application, 2005)
- Primary Care Telehealth Outreach Clinics (PCTOC) (CBT applications, 2011)

TeleMental health, the Polytrauma Telehealth Network, and TeleRetinal imaging are the most widespread Clinic Based Telehealth standardized applications in VA.

VHA's National TeleMental Health Program

TeleMental Health (TMH) was first documented in the United States in 1959 at the University of Nebraska*. By the 1960's, the University of Nebraska was connected to Omaha, Lincoln and Grand Island VAMCs to deliver TeleMental Health services (Wittson & Benschoter, 1972). In 1968, the VA in Bedford was also connecting Veterans using TeleMental Health Services with clinicians at the Massachusetts General Hospital (Dwyer 1973). However, for large scale operations, the Clinical Video

Telehealth technologies that supported TeleMental Health were too expensive and cumbersome until the computer age flourished in the 1990s.

Beginning in 1997, VHA implemented substantial start-up funding for TeleMental Health services nationally. The National TeleMental Health Center provides services in areas such as pain management, psychogenic non-epileptic seizure (NPES) care, as well as Compensation and Pension examinations to Veterans in the United States and abroad.

** Wittson, Affleck & Johnson, 1961*

VHA's TeleRehabilitation and National Polytrauma Telehealth Network (PTN)

TeleRehabilitation is defined as providing a range of rehabilitation services at a distance using communication technologies. It is a relatively new in Telehealth, with most of the development in the last decade. Growth of TeleRehabilitation has been challenged by the "hands-on" approach to rehabilitation (i.e., many clinicians felt it was not possible to evaluate or treat patients without being able to touch them). However, these challenges are slowly being extinguished through the use of Telepresenters and new technologies. TeleRehabilitation is now seen as an exciting alternative model of care and can assist patients gain their ultimate functional outcome.

TeleRehabilitation is a collaborative effort between Rehabilitation and Prosthetic Services and Telehealth Services, and is part of the overall Connected Care Program. The mission of Telehealth Services is to provide the right care, at the right place, and at the right time through effective, cost-effective, and appropriate use of health information and telecommunications technologies. TeleRehabilitation, as part of Telehealth, strives to meet this mission by improving access to Rehabilitation specialty care services for Veterans, particularly patients in rural and highly rural areas.

Veterans with disabilities—especially in rural areas—can greatly benefit from the growth of TeleRehabilitation. Many live in areas void of Rehabilitation specialists. TeleRehabilitation can extend specialists from medical centers to Community Based Outpatient Clinics (CBOCs), thus providing increased access for these Veterans. For Veterans with disabilities in need of long-term follow up, such as stroke and Traumatic Brain Injury (TBI), TeleRehabilitation offers the option for clinicians to enhance services, resulting in increased functional gains and social reintegration.

The majority of TeleRehabilitation is through Clinical Video Telehealth (CVT), which is the use of real-time interactive video conferencing. CVT also includes peripheral technologies to assess, treat, and generally, provide care to a patient remotely. A typical CVT encounter links the patient(s) at a clinic (near site) to provider(s) at another location (far site). Examples of services provided through CVT TeleRehabilitation:

- TeleAudiology
- Blind Rehabilitation
- Kinesiotherapy (KT)
- Occupational Therapy (OT)
- Physical Therapy (PT)
- Recreation and Creative Arts Therapy
- Speech Language Pathology
- Specialty Clinics:

- Amputation
- Assistive Technology
- Be Active and MOVE!
- Durable Medical Equipment
- Polytrauma
- Traumatic Brain Injury (TBI)
- Wheelchair

TeleRehabilitation is also involved in Home Telehealth (HT), which applies the use of telecommunications technologies to provide clinical care and promote patient self-management as an adjunct to traditional face-to-face care. Health information is exchanged from the Veteran's home or other location to the VA care setting, alleviating the constraints of time and distance. This is accomplished through the use of home devices, with Disease Management Protocols (DMPs) loaded into them. The DMPs provide a dialogue with the patient, whose responses are securely transferred from the Veteran's home to the Veteran's Telehealth Care Coordinator (e.g., a DMP for Traumatic Brain Injury has been developed and is a 28-day dialogue regarding managing the symptoms of the diagnosis).

Additionally, there have been developments in other types of technologies, such as mobile applications and the use of CVT into the Veteran's home. An application, called "The Concussion Coach," is available on iTunes for Smart Phones and will assist Veterans manage the symptoms of mild Traumatic Brain Injury. CVT into the Home connects VA providers to the Veteran directly into their homes; use of this modality in Rehabilitation is being explored.

The Polytrauma Network was created in 2005 to link, via videoconferencing, VA's four national Polytrauma Rehabilitation Centers with the established Polytrauma Network Sites in VHA's 17 other VISNs, to improve access and to bring Polytrauma care closer to home for combat-wounded Veterans. Technologically, the Polytrauma Network represented VA's first clinical videoconferencing network, linking all 21 VISN's with national network quality of service (QoS) standards to ensure video quality.

For the first time, clinical video traveling from VISN to VISN or coast to coast was identified and tagged as something distinct from all the other digital traffic traversing the national backbone of VA's IT network. This distinction as clinical video afforded it a higher priority and quality of service if and when IT network traffic became congested.

What began as the 21-unit the Polytrauma Network has matured into a larger national Clinical Enterprise Video Network (CEVN) that currently connects over 1,900 Clinical Video Telehealth units in VA Medical Centers and CBOCs. Most recently, VA expanded CEVN even farther with additional Clinical Video Telehealth units in VA sites for Audiology and Spinal Cord Injury services, as well as connecting CEVN safely and securely to non-VA sites (e.g., university clinics, Indian Health Service {IHS} clinics, Department of Defense {DoD} treatment facilities and private residences) for bi-directional encrypted Clinical Video Telehealth.

VHA's National TeleRetinal Imaging Program

In 2006, VHA implemented a National TeleRetinal Imaging (TRI) program to screen for diabetic retinopathy. Diabetes is a major burden of disease that VHA provides care for since estimates suggest that over 20 percent of the VA patient population has diabetes mellitus. The prevalence of diabetes in

the Veteran population makes the timely assessment of diabetic retinopathy a major VA health care need. TeleRetinal screening is an application whereby VHA accesses Veterans with diabetes and assesses for diabetic retinopathy. This is based on a clinical pathway developed as part of a cooperative effort with the Department of Defense, VHA and the Joslin Diabetes Center.

Since 2006, nearly 500,000 Veteran patients have been examined via more than 450 imaging systems, which are installed throughout all 21 VISNs nationwide. Since diabetes is one of the three leading causes of vision loss, the implementation of TeleRetinal imaging programs results in more rapid diagnosis and *timely and appropriate referrals for specialty care thus **significantly reducing the risk of vision loss.

** TeleRetinal Imaging to Screen for Diabetic Retinopathy in the Veterans Health Administration*

*** A Telemedicine Program for Diabetic Retinopathy in a Veterans Affairs Medical Center—the Joslin Vision Network Eye Health Care Model*

Growth of Clinic Based Telehealth in VA

There are more than 100 Clinic Based Telehealth applications in use nationally. Table 1 lists the top 20 Telehealth clinics in use during FY 2014. Although these applications are valid uses of Telehealth to provide care, where distance separates the patient and provider, VHA Telehealth Services has not completed formal reviews of all of these or developed standardized models for their expansion nationally.

Table 1. Top 20 Clinic Based Telehealth Clinic Stops and Names during FY13

RANK	(DSS Stop Code) CLINIC NAME	All CBT Encounters
1	(718) DIABETIC RETINAL SCREENING	219,294
2	(502) MENTAL HEALTH CLINIC INDIVIDUAL	147,890
3	(373) MOVE PROGRAM GROUP	67,402
4	(304) DERMATOLOGY	53,157
5	(107) EKG	41,010
6	(509) PSYCHIATRY INDIVIDUAL	33,385
7	(160) CLINICAL PHARMACY	28,073
8	(323) PRIMARY CARE/MEDICINE	24,314
9	(534) MENTAL HEALTH INTEGRATED CARE INDIVIDUAL	12,689
10	(540) PCT-PTSD INDIVIDUAL	12,669
11	(317) ANTI-COAGULATION CLINIC	12,276
12	(560) SUBSTANCE USE DISORDER GROUP	11,939
13	(510) PSYCHOLOGY INDIVIDUAL	11,722
14	(123) NUTRITION/DIETETICS INDIVIDUAL	11,067
15	(306) DIABETES	10,537
16	(203) AUDIOLOGY	10,132
17	(550) MENTAL HEALTH GROUP	9,272
18	(420) PAIN CLINIC	6,565
19	(562) PTSD INDIVIDUAL	6,141
20	(205) PHYSICAL THERAPY	5,709

The following figures provide the growth of Clinic Based Telehealth within VA since 2004.

Figure 1. CVT Patient Numbers, FY 2004-2013 and Projected through FY 2014

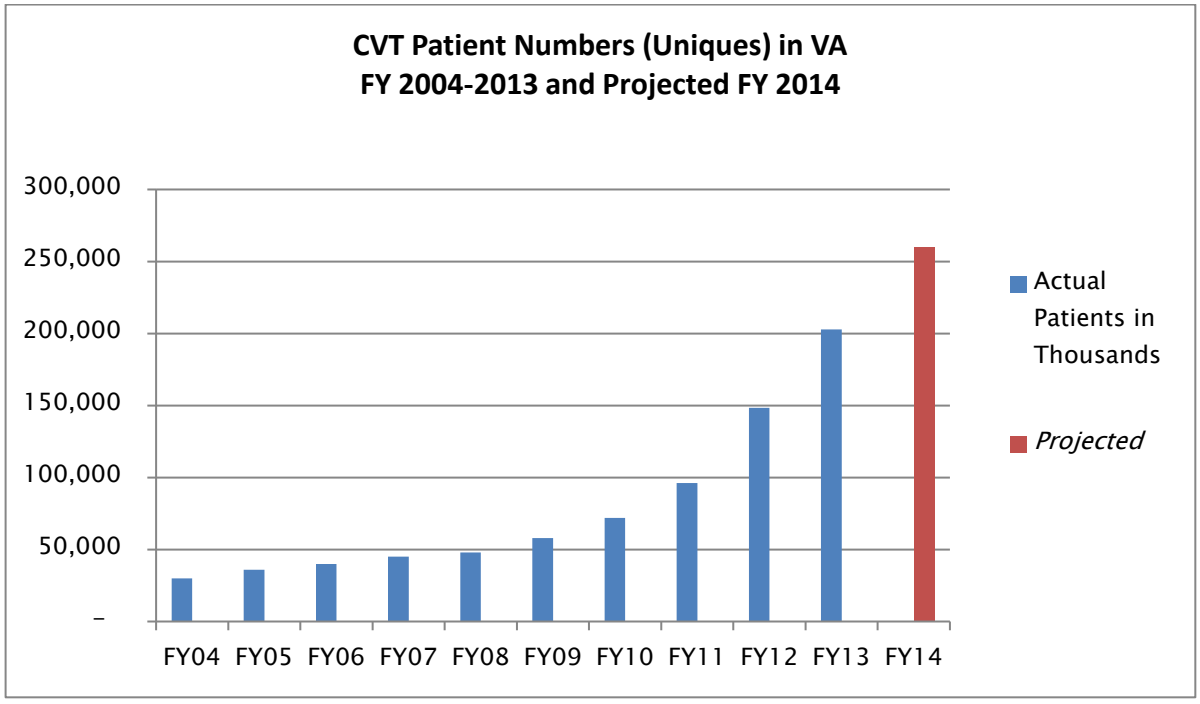
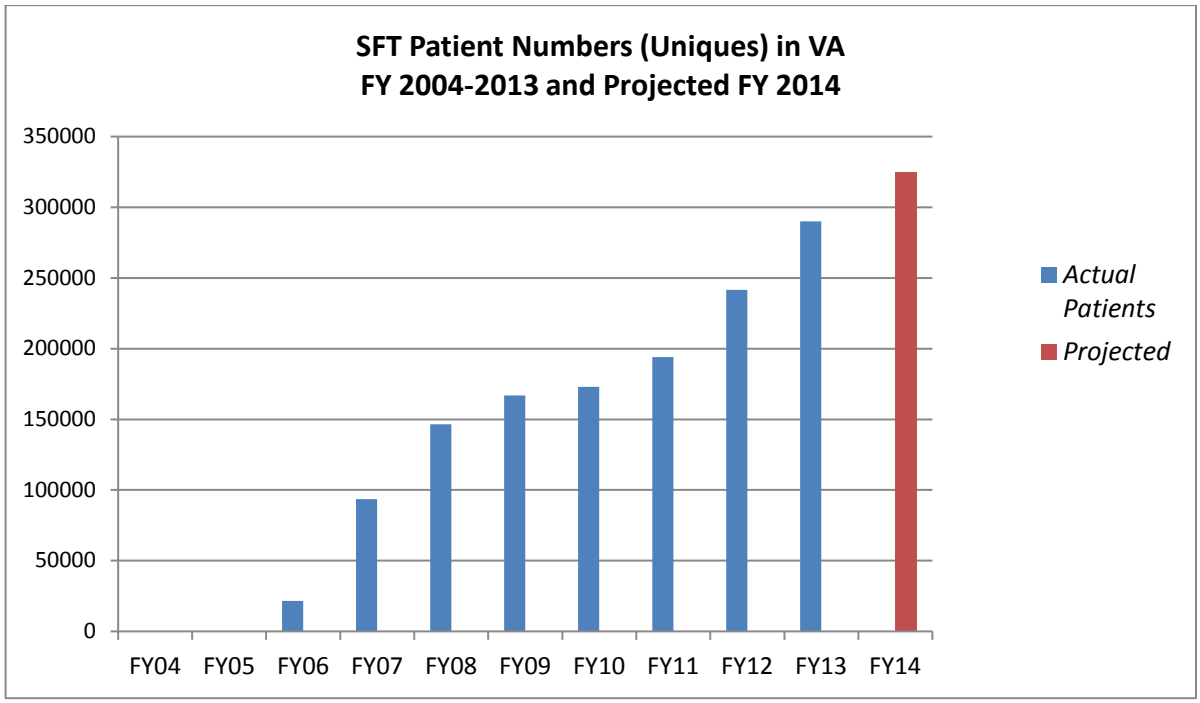


Figure 2. SFT Patient Numbers, FY 2004-2013 and Projected through FY 2014



CHAPTER 3: Organization and Infrastructure of the VISN Telehealth Network

Organization and Infrastructure

The importance of organization and infrastructure, at both **VISN** and **VAMC** (Station) levels, in the development and operation of Telehealth programming cannot be over-emphasized. Because Telehealth involves such a large number and variety of organizational entities within these different levels of the organization, high degrees of coordination, communication and oversight are necessary.

Telehealth must be seen as a continuum, including clinic-based, home-based and mobile patient settings, as well as synchronous (Clinical Video Telehealth) and asynchronous (Store-and-Forward Telehealth) modalities of clinical service delivery. In order to effectively plan, deploy and operate Telehealth programs, basic infrastructure and oversight should be in place at the VISN and VAMC levels. The oversight is recommened to be a committee of diverse stakeholders committed to the development and expansion of quality telehealth programs. Important elements of this infrastructure which relate to Clinic Based Telehealth are listed in Table 2.

Table 2. Telehealth Categories

	Clinic Based Telehealth		Home Telehealth	
	Store-and-Forward	Clinical Video	Store-and-Forward*	Clinical Video
Provider Setting	Clinic	Clinic	Clinic	Clinic
Patient Setting	Clinic	Clinic	Home	Home
Technologies	• VistA Imaging • Digital Camera • Image Capture • Peripherals	• Video teleconferencing • Telehealth Clinical Cart • Peripherals	• Messaging Device • Interactive Voice Response (IVR) • Peripherals	• Broadband Video (MOVI) • Videophone • Peripherals
Staff	• Telehealth Clinical Technician (TCT) • Imager • Reader	• Telepresenter	• Care Coordinator	• Provider • Care Coordinator
Examples	• Retinal Imaging • Dermatology • Wound Care • Pathology • Cardiology • Gynecology	• Mental Health • PM&R • Audiology • Patient Health Education • Endocrinology • Gynecology • Women's Health • Pharmacy	• Non-institutional care • Management of chronic conditions • Health Promotion/ Disease Prevention • Acute Care/Case Management	• HBPC • Mental Health • Medication • Management • PM&R • Home Evaluations • Care Coordination

** Although using a SFT pathway, Home Telehealth (HT) programs have dedicated stop codes and clinic locations distinctly different and separate from those used for SFT. Clinical Video Telehealth (CVT) stop codes and clinic locations for care provided into the home setting are identical, whether provided by an HT program or a CVT program.*

Oversight

This manual will describe the underlying processes to: 1) plan, 2) implement, and, 3) manage the day-to-day operations for maintaining and expanding safe and effective Clinic Based Telehealth programs.

A VISN Telehealth program and infrastructure consists of Clinic Based Telehealth and Home Telehealth services programs, and are designed to achieve:

- Increased workload capacity.
- Increased access to health care, including primary care, specialty consultations and patient education.
- Improved continuity and coordination of care across the continuum of care.
- Reduced waiting times for access and treatment.
- Provide alternatives to long-term institutional care.

The general strategy for implementing Telehealth in a VISN takes place in five (5) stages:

1. Develop, standardize and maintain the organizational, clinical, technical and business infrastructure at VISN, VAMC and program levels, as a foundation to all Telehealth development and operations.
2. Identify the health care needs of patients Telehealth can address appropriately, safely and cost-effectively, ensuring a thorough analysis of cost/benefit/sustainability.
3. Determine suitable Telehealth clinical, business and business/management processes to meet identified health care needs.
4. Design, implement and manage Telehealth programs to meet identified health care needs.
5. Practice continuous quality improvement processes to optimize Telehealth operations at all levels of the organization with oversight from a diverse body of stakeholders who meet regularly to evaluate and make recommendations.

An aspect of a VISN Telehealth Program is to provide timely, efficient access to health care, improve clinical outcomes, improve patient satisfaction and reduce health care costs. The VISN Telehealth Program is also charged to promote and advance the use of Telehealth modalities for clinical care, consultations, health promotion and disease prevention, and coordination of care, where such use is deemed appropriate.

The organizational structure of the VISN Telehealth Program is designed to ensure local control, with proper VISN oversight for planning, deployment and operational functions. Integration with existing programs and processes, as well as functional communication with VISN and station systems, is a critical factor for success. Also, there are technology infrastructure components to support the VISN, which include the VHA Clinical Enterprise Videoconferencing Network (CEVN) and Telereader/ VISTA applications.

CHAPTER 4: Planning and Deploying Integrated Telehealth Services

Planning for Clinic Based Telehealth Services

Planning is essential, and developing a strategy to implement Clinic Based Telehealth involves numerous steps. A methodical approach is recommended to ensure critical elements are not overlooked, which could seriously impact overall program success. Successful Telehealth applications integrate technology with clinical program needs. The primary components of planning for integrated Telehealth services are:

- A thorough *needs assessment*, which includes basic infrastructure such as staffing, equipment and space.
- A strong *business case*, which includes an analysis of the Return on Investment (ROI) and plan for sustainability; an essential element for Telehealth program development.
- A well-developed *budget*, which will identify the resources and provide a foundation to track, report and sustain the program financially, and provides additional evidence the program is *feasible and sustainable.*
- Gain approval and initiate *Telehealth Service Agreement*, which include service chief and Chief Medical Officer (CMO) approvals, along with *clinical*, business and technology requirements for deployment, organization, accountability and management.

Needs Assessment

There may be situations where a healthcare service may want to formally establish a new Telehealth program and/or expand an established Telehealth program. In either instance, the program needs to demonstrate solid evidence the Telehealth program provides cost-effective and equal or greater benefits for patients over traditional care. One may want to consider soliciting the assistance of staff who have expertise in this area (i.e., health systems specialist, health services researcher, etc.) to conduct a formal needs assessment.

The needs assessment provides a structure to guide one in the development of a program business plan. The needs assessment identifies the goals and objectives of the project, as well as resources and activities needed to achieve the plan. The needs assessment is used to provide information such as the targeted population, business perspectives and metrics for performance evaluation. A needs assessment is also a systematic method of identifying unmet needs of the population and making changes to a population that will benefit from an intervention. Criteria in the needs assessment appraisal must include the following:

- Access to the targeted population: *What specialty population(s) will one serve with Telehealth?*
- Expected outcomes from both the clinical and business perspectives: *What does one hope to accomplish using Telehealth?*
- Performance measures: *What performance measures will Telehealth affect?*
- Space and resources available: *Is there appropriate space to conduct a Telehealth visit?*
- Staffing needs: *Is there a specialty provider willing and able to use Telehealth? Are there other clinical staff who can assist in the Telehealth visit? What training may be needed to support/provide Telehealth? Are there specific staffing requirements for special populations*

(e.g., female Telepresenters for women Veterans, and chaperones for gender-specific examinations)?

- Capacity and workload: *How many specialty clinics could utilize this technology based on the resources available?*
- Technical considerations: *What types of Telehealth equipment will best serve a specialty population? Is there adequate bandwidth to support new clinics and/or new equipment?*
- Equipment inventory: *What equipment currently exists to support Telehealth? Will it meet the patient needs, as well as information and privacy security, and quality standards of practice?*

The Telehealth service planner needs to determine the patient population as well as the specific fields of relevance for analyses. Useful data includes:

- Patient data/metrics.
- Documented problems in meeting the needs of a group of patients (such as distance and travel barriers, no-shows, particular medical problems, weather problems, etc.).
- Available resources.
- Workload and clinic capacity.
- Special needs populations.
- Provider data.

Information received from the needs assessment will help support a productive clinical strategic plan to deploy Telehealth.

Business Case Development

A business case is made to ensure the program will provide quality care, a return on the financial investment and have potential for sustainability. The needs assessment is also a major component of the business case and constructed from: 1) the number of patients who have health needs that can be treated via Telehealth, and, 2) the costs of providing care via Telehealth compared to other methods of providing care. Given the current demand for primary and specialty care services in VHA and the mandate to improve access to services, especially at geographically remote sites, it is likely the need for Telehealth will continue.

Factors to consider when developing the business case for Telehealth:

- Costs associated with equipment, labor and facilities.
- Capital investment, expenses and overhead.
- Start-up and ongoing sustainability for both the patient and provider sites.
- Complex issues surrounding workload and reimbursement.
- Lifespan of technology.

It is important to develop specific strategies and targets to guide the Clinic Based Telehealth program development. The next step in developing the plan is execution and deployment. Information obtained from the needs assessment should guide the plan. The following are key elements that should be included when developing the strategic plan:

- Focus on the *"Who, What, Where, When and How"* of both clinical and business aspects of the Telehealth program.
- Roles and responsibilities of the team should be well-defined for successful implementation.
- Action items and deadlines should be clear.
- Legacy review.

Budget Development

Due to the National VA initiatives for Telehealth, there has been a recent infusion of funding to VISNs for expansion of Telehealth, related to needs for additional patient panel capacity, timely access, and increased outreach to Veterans in rural areas. For the majority of Telehealth programs, these resources are allocated from the VISN to VAMCs, or additional funding is provided at the VAMC level. In either scenario, there is a need to assess and plan for funding requests to support Telehealth.

Things to consider when putting together the budget proposal:

- Perform a needs assessment of Telehealth services at VISN and/or facility level.
- Identify necessary resources (i.e., Telehealth equipment, staffing, furniture, etc.).
- Estimate the cost of resources and establish the budget request.
- Develop a proposal that describes the needs, goals, strategies, investment, evaluation and expected outcomes.
- Document the Telehealth program investment payback period.
- Refine and specify estimated items as the project is implemented.
- Gather any supporting data reflective of the needs (e.g., wait time, travel cost, etc.). *Assistance from VISN strategic planners may be required to obtain this data. Establish targets for all utilization, expenses and benefits (indirect and direct).*
- Use of legacy resources, space, staff, and equipment.

Feasibility and Sustainability

Feasibility is defined as the ability for a program to meet a clinical need and achieve specific outcomes. Sustainability is a program developed in such a manner it will be able to continue functioning long into the future, achieve financial and clinical stability, while meeting clinical outcomes and providing quality care. Long-term sustainability of any Telehealth program requires methodical planning and evaluation. It is important to train providers and give providers feedback (e.g., data on number of visits per provider, service, patient satisfaction, etc.).

Funds may be available to pilot a program. However, evidence must be provided, in terms of quality and performance outcomes, in order to continue and/or expand a newly established program beyond the pilot phase. Clinical, technical and business elements need to be assessed and analyzed using data collection, as well as the design of business operations to ensure processes are in place to enable effective, efficient and sustainable Telehealth programs. This information is vetted through a panel of Subject Matter Experts (SMEs) and included in TeleSpecialty Supplemental Operations Manuals.

Funding to initiate a Telehealth program and maintain it for the first one to three years is usually determined in the original business plan. Funding can come from a variety of sources (e.g., Rural Health Initiative, VISN, etc.) Veterans Equitable Resource Allocation (VERA) is the typical funding route for sustaining VHA healthcare systems, and is effective in the Telehealth model, too. A Veteran who receives care at more than one location is described as having *shared care*. This is of particular

importance when the patient and provider sites are located in different facilities (Interfacility). The "Pro-Rated Patient" (PRP) reimbursement is prorated based on the cost of care at each facility. Although distributed between the facilities and VISN, the PRP VERA allocation is equal to and never exceeds one (1).

The following contacts may be helpful to provide guidance regarding feasibility and sustainability of a program:

- National Telehealth Training Centers
- National Telehealth Clinical Video Telehealth Leads
- VISN Telehealth Leads/Program Managers
- The Telehealth Services Intranet website

Specialty "hub" and "spoke" programs in VHA (e.g., Endocrinology Televisits between Medical Centers and affiliated CBOCs, Spinal Cord Injury specialty consults between SCI hub site and support clinics)

Satellite Broadcasts for Telehealth (available on VA Knowledge Network {VAKN} and re-broadcast on the Content Distribution Network {CDN}). Provides current updates and changes in the field, and allows for interaction between the field and Subject Matter Experts (SMEs).

Gaining Approval and Agreements

Clinic Based Telehealth development and implementation activities must involve those individuals who have ultimate responsibility for governance, administrative and fiscal authority, and oversight of the programs. Examples of the individuals with approval authority include the Chief Medical Officers (CMOs), Directors, Chiefs of Staff (COS) and clinical service chiefs for each location involved in the planned Telehealth service. Potential programs should be thoroughly vetted and have approval obtained from the governing individuals noted at the VISN and facility levels, depending on the type of program. This approval process should go through appropriate channels.

Included in the approval process is the completion of the Telehealth Service Agreement (TSA) and Memorandum of Understanding (MOU) agreements. The Telehealth Service Agreement specifies and governs the clinical, business, and technical details of operations of the Telehealth services between providing and receiving facilities, and defines the responsibilities and procedures involved in establishing and operating a Telehealth clinic between involved medical facilities. A Memorandum of Understanding serves as an agreement between participating facilities, and defines expectations of the providing facility and the receiving facility with regard to credentialing and privileging of providers in the provision of Telehealth service delivery. Credentialing and Privileging also has required levels of administrative and clinical approval. The resources will guide you through the steps of the agreements and their purpose. VHA Telehealth Services, in cooperation with VISN Telehealth Managers, has developed the resources to support the development and implementation phases for Clinic Based Telehealth programs.

Deployment and Management of Clinic Based Telehealth Services

The key elements to success are knowledge of the integral components of Clinic Based Telehealth (CBT), to include clinical applications, business plan and partners, Veteran populations to be served,

and promotion and outreach strategies. The core of the Clinic Based Telehealth business plan is to implement business practices that support the goal to improve capacity, access, quality of care and Veteran satisfaction using state of the art Telehealth technologies, and the supporting Information Technology infrastructure that facilitates provision of care to Veterans.

The key to success is to implement the business plan simultaneously with the clinical plan. No matter how robust the technical infrastructure, a Telehealth program cannot be successful without appropriate business infrastructure.

Directives, policies and procedures define the structure of the Telehealth service and provide standardization of processes for safe, high quality delivery of care. Elements that must be covered by policies and procedures are:

- Staffing: Roles and responsibilities of staff involved.
- Credentialing and privileging.
- Clinical Service Guidelines.
- CBT visit and clinical environment, to include patient privacy, safety, and confidentiality.
- Scheduling.
- CBT documentation.
- Informed consent.
- Workload capture and data management.
- Telehealth technology.
- Staff competency and training.
- Quality and Risk Management.
- Conditions of Participation.
- Emergency procedures.
- Infection control.

Details and resources for these critical components, as well as promotion of Telehealth services through information outreach are included in subsequent chapters.

Links to Related Resources

Clinic Based Telehealth Service Deployment Checklist
This is a comprehensive 65 item checklist which should be used each time a new clinic based Telehealth program is contemplated.

Telehealth Needs Assessment Template
The Needs Assessment is a fundamental component to any Telehealth development.

Telehealth Service Approval Process
Reference chart to ensure that all approvals are completed

Chief of Service Line Approval Form
Template for approval of Service Line Chief

Chief of Staff Approval Form
Template for Chief of Staff approval

Telehealth Service Agreement
Essential document for each Telehealth application to identify Telehealth variables. To be used in conjunction with the Credentialing and Privileging MOU

Telehealth Clinical Service Guidance Development Tool
Tool and process to identify variables between Telehealth and traditional face-to-face healthcare.

CHAPTER 5: Human Resources: Virtual Team Members

Human factors involved in a Telehealth visit are crucial to a successful service and must be considered when creating Telehealth clinics. A major challenge in the implementation and sustainability of programs is working with a large number of individuals, various procedures and guidelines, different work styles, development of position descriptions and functional statements, biases and human factors. Human factors include the ability to build relationships, communicate effectively and provide quality customer service. The human factors matter most in the Veteran's experience during a Telehealth visit. Arguably, the people involved contribute as much toward a successful encounter or service as specialized Telehealth equipment or adequate video connections.

One of the critical predictors of a successful and sustainable Telehealth program is adequate and competent staff. Telehealth Clinical Technicians (TCTs) provide technical support and a Facility Telehealth Coordinator (FTC) ensures business and infrastructure processes are in place. The same professional and support staff must be available as in a traditional clinic setting.

Suggested staffing requirements for a mature patient population or patient panel include the following:

1) One Telehealth Clinical Technician per 5,000 patients
2) One Registered Nurse: Telepresenter per 1,200 Primary Care patients

3) One Registered Nurse: Telepresenter per 5000 specialty care patient encounters

The Virtual Team

Staffing is one of the challenges of Clinic Based Telehealth and Store-and-Forward Telehealth implementation. The best practice staffing model for Telehealth is inclusive of several positions and levels designed to facilitate the operation of Clinic Based Telehealth and Store-and-Forward Telehealth services. Once the basic administrative and clinical operational systems are agreed upon and established, the heart of the successful patient visit is dependent upon the patient, provider and support staff preparation. The roles and responsibilities of the Teleprovider, site clinical coordinator, Telepresenter, Telehealth Clinical Technician (TCT), clerk and patient must be clear to each person involved to provide a smooth and efficient Telehealth visit.

Particular to this service is all staff involved need to be synchronized in the delivery of care. The location where the patient is receiving the Clinic Based Telehealth services is known as the patient site (Originating Site or OS). Generally, the patient site is at a CBOC or other outpatient clinic (OPC). The Teleprovider location, also known as the facility site or Distant Site (DS), is where the Primary Care, specialty or consulting provider is located. This section will provide examples of staff position descriptions, roles, duties, recommended competencies, training and orientation for those involved in Clinic Based Telehealth. There are the Joint Commission (JC) requirements for Telehealth programs to have:

- Position descriptions for each staff member.
- Training plan for orientation, initial competency and regular competency performance review.
- Troubleshooting procedures.

VISN Telehealth Manager and Analyst

The VISN Telehealth Manager is responsible for the development, deployment, management and quality of all Telehealth programs throughout the VISN. Due to the size and scope of these responsibilities, the structure may also include a VISN Manager assigned to CBT and another to Home Telehealth (HT) services. With assistance of the VISN Analyst, the Telehealth manager is responsible for the execution and operation of Telehealth programs within the VISN. It is recommended these positions be aligned under the VISN Chief Medical Officer (CMO).

Facility Telehealth Coordinator (FTC)

The Facility (VAMC-level) Telehealth Coordinator (FTC) is responsible for the execution and operation of Telehealth programs within the facility and other divisions (i.e., CBOCs), and for the overall planning, coordination, implementation and evaluation of clinical applications of Telehealth and video conferencing technology based on facility needs. The Facility Telehealth Coordinator works collaboratively with the VISN-level Telehealth Program Manager. It is recommended this position be aligned under the facility Chief of Staff.

Teleprovider

The Teleprovider is a practitioner who strongly supports the implementation of one or more Clinic Based Telehealth applications into the system of care and is interested in promoting Clinic Based

Telehealth among peer providers. It is important for the provider to have a good understanding of the benefits Telehealth can provide to Veterans, the VA and themselves.

The following elements describe this role:

- Expert on Clinic Based Telehealth within specialty clinics.
- Clear the path for Clinic Based Telehealth deployment.
- Collaborates with specialty care provider(s) and CBOC staff.
- Familiar with all aspects of the Telehealth equipment and the clinical environment.
- Telereader in Store-and-Forward Telehealth (SFT) modality.
- Directs care for Telehealth patients.

Telepresenter

The Telepresenter can be any person assisting the provider in the *presentation* of the patient using Telehealth technology. The Telepresenter is the hands, eyes, ears, and nose for the provider. Depending on the skills needed for the encounter, Telepresenter can be licensed independent providers, Registered Nurses (RNs), Licensed Practical Nurses (LPNs), and Telehealth Clinical Technicians (TCTs).

The following elements describe the role of the Telepresenter:

- Cover Telehealth clinics scheduled for the day.
- Manage required screenings and complete clinical reminders and documentation within scope of practice.
- Assist Teleprovider with the patient physical exam as needed.
- Patient education and documentation within scope of practice.
- Workload capture.
- Regular contact with the Facility Telehealth Coordinator to work out any process issues, equipment needs/problems, data collection and any other logistical issues.
- Provide customer service to all Veterans.
- Schedules initial and follow up appointments.
- Provide chaperone for female patients when required (refer to VHA Handbook 1330.01 “Health Care Services for Women Veterans” for services that require female chaperones).
- Operate and troubleshoot technology used in the patient encounter.

Telehealth Clinical Technician (TCT)

The Telehealth Clinical Technician is a staffing asset that supports the clinical, business and technical areas needed to deploy, implement and manage Telehealth clinics.

The following elements describe the role of the TCT:

- May serve as CVT Telepresenter and/or SFT Imager.
- May provide clerical support.
- Expert in deployment, operation, and troubleshooting of Telehealth technology.
- Collaborates with Facility Telehealth Coordinator (FTC).

- Schedules initial and follow up appointments.
- Educates staff on Telehealth technology.
- Educates patient on Telehealth technology.
- Supports Home Telehealth and CVT into the Home.
- Coordinates with supporting services such as IRMs, Biomed or OIT.

SFT Imager

The imager is essential for the clinical aspects of the intervention, should be part of the clinic team and available for all Clinic Based Telehealth visits. Telepresenter and Telehealth Clinical Technicians can also be trained to perform the duties of a Store-and-Forward Telehealth Imager, or this can be a dedicated position, such as in the TeleRetinal screening clinics. The duties of the Imager include:

- Function as a patient care coordinator and familiar with computer use, CPRS, the scheduling package and Veterans Health Information Systems and Technology Architecture (VistA).
- Obtaining digital Store-and-Forward Telehealth images according to validated guidelines.
- Specifically for TeleRetinal screenings, providing post-imaging patient education sessions, which include a brief anatomical explanation of important appropriate structures and an overview of the pertinent condition.
- Specifically to TeleRetinal screenings, reporting and communicating findings of the image evaluations to appropriate providers and clients, and being responsible for maintaining a patient database.
- Identifying patients requiring immediate image evaluation once images are obtained, and assisting in scheduling and appointing patients for referral and comprehensive specialty care examination.
- Proficient in navigating CPRS, VistA and proprietary image acquisition software required to operate the digital imaging systems.
- Proficient in operating digital retinal and hand-held imaging systems to acquire non-simultaneous stereoscopic images for retinal screening, and appropriate skin/lesion images for Dermatology.
    - May want to consider a female Telehealth Clinical Technician who can also serve as required chaperone for Women's Health gender-specific examinations, when required.

Clerical Support

Responsible for the administrative tasks involved in every visit and is typically an existing position at the clinic. This individual will be used to support Clinic Based Telehealth and may provide the following services:

- Reminder phone calls.
- Reminder letters.
- Veteran check in through VistA into two clinics; provider site (Distant Site) and patient site (Originating Site).

- Veteran check out of VistA once the Clinic Based Telehealth clinic appointment is completed.
- Schedule Veterans for follow up appointments if ordered by the Teleprovider.
- Distribute patient satisfaction surveys for return to the National Telehealth Training Center.

Technical Support

Information Resources Management (IRM), Office of Information and Technology (OIT) and Biomedical Engineering (Offices that support information and clinical technology) are responsible for setting up and troubleshooting pertinent equipment used for Clinic Based Telehealth. They provide technical support to the providers and support staff engaged with the hardware and software, for reliable connections and efficient performance. They make recommendations to the Facility Telehealth Coordinator on new equipment, replacement equipment and equipment maintenance.

CHAPTER 6: Credentialing and Privileging

The process of Credentialing and Privileging ensures the quality of care delivered and reduces the risk to patients for adverse outcomes, by completing an appropriate assessment of staff, and potentially reduces the risk for liability exposure for the facility and Agency. VHA policies listed in the resources section allow for complete reviews to ensure practitioners have the appropriate credentials and requisite competencies for granting appropriate privileges, and provide a framework for VHA provision of remote services through Telehealth.

Credentialing and Privileging (VHA Handbook 1100.19) delineates authorized procedure regarding credentialing and privileging in VHA. This Handbook also allows for Credentialing and Privileging of Telehealth providers by proxy, if specific policy and procedure is followed.

Memorandum of Understanding and Telehealth Service Agreement:

1. The Memorandum of Understanding (MOU) for Telehealth is between facilities delivering and receiving the Telemedicine services. The MOU must be signed by facility leadership at each medical center participating in Interfacility Telehealth activities. The MOU provides governance and delineates responsibility for the process. Among numerous details, the MOU stipulates all Telehealth providers will be credentialed and privileged at the VHA facility from which they deliver Telehealth services. The MOU should be reviewed by the Executive Committee of the Medical Staff (ECMS) upon initiation and as defined locally for future reviews. Medical staff leadership is responsible for monitoring services provided through agreements such as Telehealth MOU (TJC LD.04.03.09, EPs 4-8).
   * *Each participating facility will have in place one (1) MOU with each of the other participating facilities, signed by Director and Chief of Staff.*

2. The Telehealth Service Agreement (TSA)—used for Clinic Based Telehealth programs. The TSA delineates the variables and responsibilities for safe and effective Telehealth service delivery. Among the variables identified in the TSA are those which relate specifically to the proxy privileging process for Interfacility Telehealth providers, including:
   1. List providers who are privileged at the provider facility to render Interfacility Telehealth services for the specific Telehealth application;

2. Identify if Telehealth service will be Teleconsultation, Telemedicine, or both;
3. Specify quality management and patient safety plans and variables, including provider performance indicators for the particular Telehealth service, and
4. Provide methodology and identify variables for FPPE/OPPE data exchange.
    * *One (1) TSA will be in place for <u>each</u> Telehealth service, signed by providing and receiving service chiefs as well as Facility Telehealth Coordinators (FTCs).*

Procedure:

1. Ensure MOU between the two participating facilities are signed by Director(s) and Chief(s) of Staff of both facilities.
    a. Completed MOU should be posted electronically on the VISN Telehealth SharePoint.
    b. Completed MOU should be forwarded to facility Leadership, Medical Executive Committee, and Credentialing Coordinator at each facility.
    c. Copies of clinical privileges for all providers delivering Telehealth services are provided to the facility receiving Telehealth services. The clinical privileges for providers delivering Telehealth services must be shared in a manner in compliance with the Privacy Act. They may only be posted on a SharePoint if it is a secure site with controlled access. Posted privileges must remain with restricted access to ensure compliance with the aforementioned privacy regulations. One way to do this is control access to the document to only one identified person at the Receiving Facility who has a need to know the information. If a SharePoint is not utilized, the Providing Facility must directly provide a copy of the privileges to the designated contact at the Receiving Facility who has a need to know the information.
2. Facility Telehealth Coordinators from each facility should collaborate with the clinical service chiefs and/or their respective designees to complete the Telehealth Service Agreement (TSA). Following completion, the FTC from each facility should ensure the TSA is signed by the Service Chief and FTC from each of the participating facilities.
    a. The completed/signed TSA should be scanned and posted on the VISN Telehealth SharePoint.
    b. The completed/signed TSA should be forwarded to the Chief of Staff, Service Chief, Medical Executive Committee and Credentialing Coordinator at each facility.

Templates for the MOU for Credentialing and Privileging and Telehealth Service Agreement are included below as additional resources.

MOU Template Link

Telehealth Service Agreement (TSA) Template Link

CHAPTER 7: Telehealth Scheduling and Clinical Pathways

Clinical Video Telehealth (CVT)

Scheduling has been identified as the single most powerful predictor of success in Clinical Video Telehealth. Clinical Video Telehealth encounters are synchronous events and the scheduling aspects have heightened importance. Clinic Based Telehealth encounters can be within a facility or healthcare

system (Intrafacility), between facilities or healthcare systems (Interfacility), or the Veteran may be located at a non-VA clinical setting, all of which combines to make Clinical Video Telehealth (CVT) scheduling more complex, for several reasons.

- Typically, each facility (medical center/healthcare system) has a separate VistA database.
- Two VistA clinics, one for the patient site encounter and one for the provider site encounter, must be scheduled.
- While schedulers usually have access to a VistA system, it can be problematic to obtain access to remote VistA systems.
- Scheduling between remote facilities requires collaboration to successfully schedule both sites.

Scheduling Telehealth encounters is more complicated than traditional face-to-face patient encounters. However, the scheduling process for Telehealth encounters should not differ from those already in place for face-to-face encounters. Unlike traditional, face-to-face encounters, CVT encounters demand the use of, and subsequent need for, a variety of other resources such as:.

- Patient (VistA).
- Provider (VistA).
- Female chaperones for gender-specific examinations and procedures.
- Rooms at both sites.
- Technology at both sites.
- Bandwidth.
- Telepresenter (if required).

The CVT Clinical Pathway, developed by the Clinical Video Telehealth VISN Managers/Leads presents a valuable resource. Remember, the Telehealth Service Agreement must be used in conjunction with the clinical pathway in order to identify variables and assign responsibility. One of the goals of the clinical pathway in the scheduling/administrative tasks related to Telehealth visit is that the process should be "invisible" to the provider and patient.

It is essential to have a comprehensive and capable Clinical Video Telehealth (CVT) scheduling process in place. Telehealth Scheduling System (TSS) is designed to address these issues, and offers the end-user a comprehensive solution for scheduling CVT encounters. Primary features include:

1. Process and organization is driven by Telehealth Service Agreements: TSAs and TSA data;
2. Simultaneously schedule multiple sites, including patient and provider sites;
3. Inventory and schedule resources, such as rooms, equipment and Telepresenter staff;
4. TSS user log-on is the same as the VA network user log-on because TSS is interfaced with *Active Directory*;
5. Multi-Level access for users based on User ID and Password; and,
6. Robust reporting capabilities.

TSS uses a service agreement structure as its core, specifically the Telehealth Service Agreement (TSA). Incorporation of the TSA structure ensures all of the clinical, technical, and business elements necessary to synchronous Telehealth scheduling are accounted for and brought to bear at the right time and place. This structure affords users of the system a great deal of flexibility to customize, in order to meet local needs and preferences. While it is more time intensive to enter the basic variables

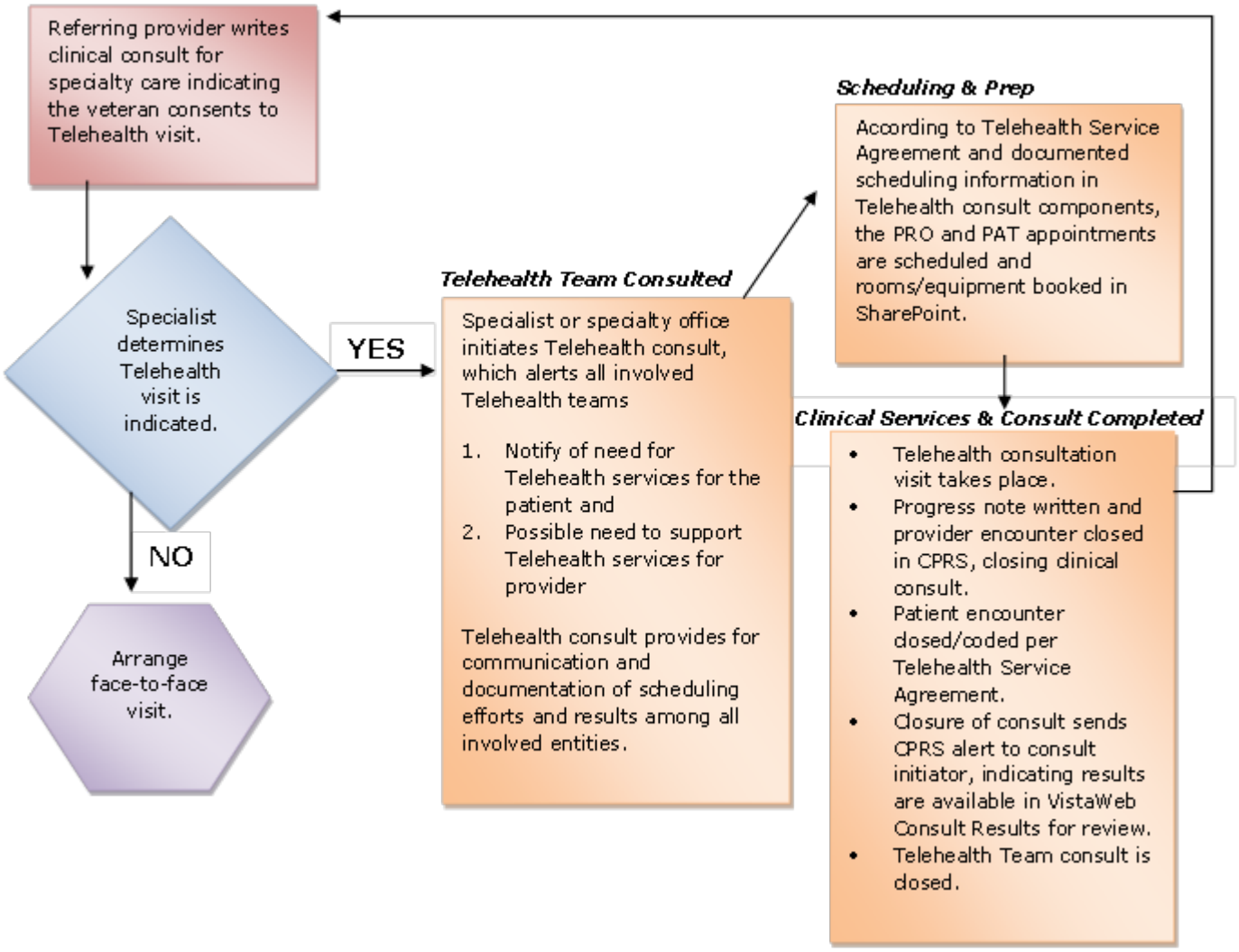
on the front-end of the scheduling process, the result is the actual scheduling of the event on the back-end, which is all-inclusive, simple and time-efficient

Link to Related Resource

VHA Consult Policy, VHA Directive 2008-056
A guidance tool to provide steps and processes for clinic consultation.

TSS Operations Manual
A guidance tool to provide steps and processes for Telehealth Scheduling Service.

Figure 1. Clinical Video Telehealth Consult Pathway Workflow:



Store-and-Forward Telehealth (SFT)

Scheduling is not as critical with Store-and-Forward Telehealth. SFT is asynchronous and usually has dedicated staff, resources, rooms and providers and allows for a less complex scheduling system. A Store-and-Forward Telehealth encounter usually follows a face-to-face visit from a provider. A consult request is either placed by the initiating provider to have the Telehealth Clinical Technician (TCT/Imager) take pictures of body parts in question or the patient has a screening reminder that must be addressed (i.e., diabetic eye reminder).

Scheduling Store-and-Forward Telehealth clinic involves:

- Patient (VistA)
- Telehealth Imager (VistA)
- Technology for image acquisition (i.e., TeleRetinal or TeleDermatology camera)
- Telereader (if required)

Figure 2. Illustrates the clinical workflow for TeleRetinal imaging. The initial surveillance consult is initiated for the diabetic patient, either by the Primary Care provider or the imaging technician. The patient arrives as part of an associated visit or as a separate retinal screening visit. Images are acquired and appropriately demonstrated to the patient at the imaging workstation. Images are sent via the Digital Imaging and Communications in Medicine (DICOM) gateway to the VistA server, where they are accessed at a remote site by in independent licensed provider certified to review the study. The resultant study is then available to the imager or Primary Care Provider, who acts on the report to appropriately appoint the patient for future follow-up.

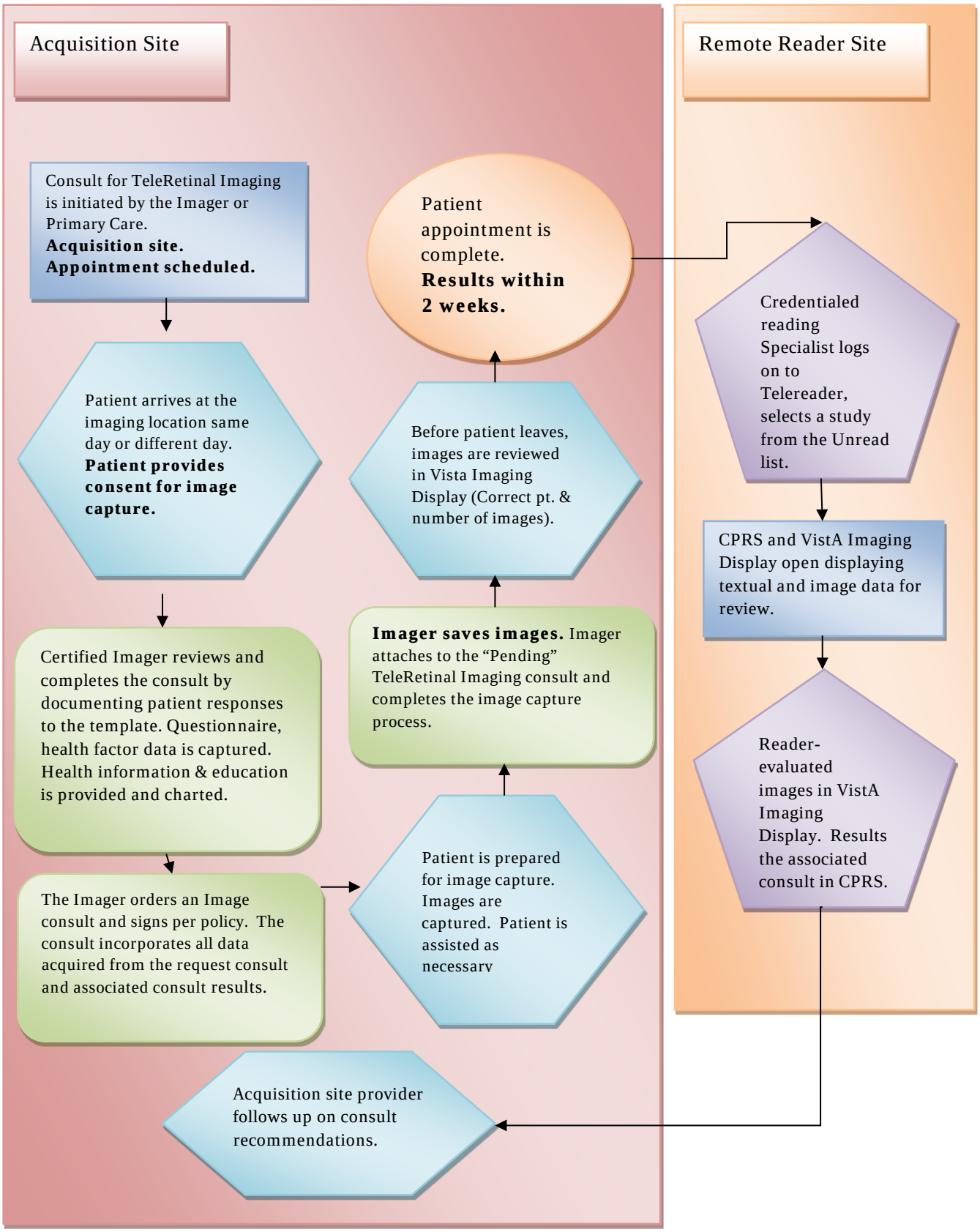
As of this publication date, a national, standardized TeleDermatology pathway has not been established by VHA Telehealth Services. Widespread deployment of the newly developed DICOM patch 106 in concert with the appointment of a national TeleDermatology Lead are in process and, once completed, a national, uniform program will be developed.

Links to Related Resources

Store-and-Forward Telehealth Technology and Installation Protocol
Policy and procedures to identify steps and process for training and protocol

VHA Consult Policy VHA Directive 2008-056
A guidance tool to provide steps and processes for clinic consultation

Figure 2. Store-and-Forward Clinical Workflow



CHAPTER 8: Telehealth Clinical Guidelines

Telehealth Clinical Guidelines are tools and processes that assist in identifying variables between Telehealth and traditional face-to-face health care. For instance, the Teleprovider is unable to make physical contact or palpate their patients due to the distance and use of technology. The Clinical Guidance will ensure Telepresenters are trained professionals, capable of completing a comprehensive physical assessment. The goal of clinical care is to provide the right care, at the right time and at the right place, while ensuring patient safety and quality outcomes. The tool assists in exploring all areas of clinical assessment, diagnostic testing, support service, interdisciplinary support and implementation of the care and follow up. Solutions to variables are recommended by Subject Matter Experts (SMEs) for the Telehealth service. The technology algorithm is developed from the solutions, and the necessary skills for the Telepresenter are identified.

Specialty-specific Supplemental Operations Manuals are developed by Subject Matter Experts in collaboration with VHA Telehealth Services. These specialty-specific supplements augment guidance provided by the Clinic Based Telehealth Operations Manual. The Supplemental Operations Manuals are available at the Telehealth Services specialty-specific web sites or VHA Telehealth Services Master Document Library.

Ryan Haight Act

Ryan Haight Act of 2001 (Public Law 110-425, 122 Stat. 4820-4834) requires tighter restrictions on Internet pharmacies. The law was enacted as a result of the death of an 18-year-old man who overdosed on a prescription drug he ordered over the Internet. The Act provides several measures intended to verify the legitimacy and medical need for a drug, as well as the credentials dispensing the medication. Of particular importance to Telehealth, a provider must conduct a face-to-face examination of a patient before dispensing a medication for legitimate medical conditions. Prescribing controlled substances is even more rigid. Ryan Haight prohibits dispensing controlled substances via the Internet without a valid prescription, which is described as being issued for legitimate medical reasons and in the usual court of professional practice. Once again, "usual court of professional practice" has been interpreted as at least one in-person medical evaluation of the patient.

Links to Related Resources

Telehealth Clinical Service Guidance
Identify variables between Telehealth and traditional face-to-face healthcare.

Ryan Haight Act
Outlines provisions related to distribution and dispensing of controlled substances by means of the Internet

VHA Telehealth Services Master Document Library
Includes a list of VHA Telehealth Services Specialty-specific Supplement Operations Manuals.

CHAPTER 9: The Clinic Based Telehealth Visit

A Telehealth visit, in contrast to the traditional medical visit, is the extension of the medical provider's knowledge, competence and resources. Creating the clinical environment and using appropriate communication skills when utilizing Telehealth can be a challenge for health care providers, who are used to traditional face-to-face/hands-on encounters with a Veteran. However, it is not about the sophisticated technology in place, rather it is the Veteran's experience which will determine if they want to use Telehealth again.

Conducting the Clinical Video Telehealth Visit

Telehealth visits can provide two types of services: *Teleconsultation* and *Telemedicine*. During a *Teleconsultation* the Teleprovider does not assume responsibility for patient care and they do not write orders or prescriptions. The consult is completed by providing guidance and advice to a referring provider on subsequent care. During a Telemedicine appointment, the Teleprovider is responsible for writing orders, prescriptions and other aspects of care. The referring provider may or may not assume responsibility for ongoing treatment of the condition. In either case, the level of participation with the patient by the specialist should be well-documented in the medical record. The Telehealth Service Agreement should clearly spell out whether *Telemedicine* or *Teleconsultation* is being offered to the individual patient site. *It should define whether responsibility for ordering labs, writing prescriptions and, most importantly, follow up on critical lab values will be assumed by the referring provider or the Teleprovider.*

There are several important things to consider for a successful Telehealth encounter. Providers must be constantly aware they are interacting over a different medium, rather than being in the room with the patient. It is essential to begin each Clinical Video Telehealth visit with complete introductions for the patient and any caregivers or other support personnel present. All individuals involved on-camera and-off camera will be introduced at both locations. At times, there may be personnel present who are not seen by the patient on the monitor. Nonetheless, these individuals should be identified to ensure the patient has awareness of their presence and participation. This is particularly important for support personnel and students who may present into the patient's view in support or educational roles. Without all individuals being identified at the outset, there is a risk the patient will feel confidentiality and privacy have been violated.

Conducting the physical examination by Telehealth follows standard medical guidelines and procedures using Telehealth technology.

Several key guidelines for a successful visit:

- Virtual Team Huddle to plan and prepare before the day's scheduled encounters.
- Place privacy sign "Telehealth in Session" on Telehealth exam room door.
- Teleprovider must remain in view of the Veteran throughout the visit.
- Video and audio transmission must be clear.
- Teleprovider must look at camera to maintain eye contact with the Veteran.
- Pan, Tilt, and Zoom (P/T/Z) cameras provide optimal view of patient examination.
- Patient and provider site use SelfView for proper framing and lighting.
- Telepresenter will assist with examination without obstructing the providers view.
- Speak naturally and clearly, and use a normal speaking voice.

- Be camera conscious, keep the camera on the speaker and/or material presented.
- Presentation mode offers ability to share desktop content.
- Speaking one-at-a-time in group encounters ensures understanding.
- Microphones transmit extraneous noises; avoid distracting behaviors, such as side conversations and note passing, interrupting the speaker, finger tapping, paper shuffling and whispering.

Conducting the Store-and-Forward Telehealth (SFT) Visit

To conduct a successful Store-and-Forward Telehealth (SFT) visit, the provider must be able to appropriately identify patients needing screening for diabetic retinopathy or dermatological conditions. It is important to begin every Store-and-Forward Telehealth encounter with an appropriate explanation to the patient of the purpose of the visit and what will take place. Providers must be constantly aware they are the only intervention that takes place directly with the patient, since the specialist reviewing the images or other data will not have contact with the patient. Therefore, it is critical to obtain as much historical and health-related information from the patient not necessarily included in the patient's CPRS medical record. This information can be available to the *Reader*, who must make a diagnosis as part of the Teleconsulting encounter, when, in fact, never has interaction with the patient.

Specific instructions to the patient and several key guidelines are required for a successful Store-and-Forward Telehealth visit:

- Provider must give direction and specific instructions to the patient to ensure quality images are obtained.
- Equipment is properly maintained and appropriate hygiene measures take place in front of the patient.
- Appropriate demonstration of the images to the patient should occur immediately following the imaging session.
- Images must be deleted from the workstation and the appropriate QA/QI measures taken while the patient is in the examination room.
- Provider should provide assistance by escorting the patient back to the waiting room if the patient has limitations with ambulation.

Clinical Video Telehealth (CVT) and Groups

The minimum requirements for CVT groups mirrors a typical Telehealth encounter, including the space for the number of patients at each location should allow for comfortable seating and temperature. The lighting should be adequate to illuminate each person in a particular room. Technology used should match the purpose of the group and all participants should be “in frame” and heard clearly by the Teleprovider. Emergency procedures should be at the fingertips of the Teleprovider and support staff at the patient site(s).

Examples of CVT group therapy include TeleMental Health, MOVE, and Smoking Cessation. Groups can include a mix of face-to-face encounters at the same time the Teleprovider is connected to a CBOC or multiple CBOCs, forming a larger group. A Telepresenter and/or peripheral devices are not always necessary. It is important the technology for CVT groups includes presentation mode, where the Teleprovider can share slide presentations, his or her desktop, web pages, drug information, or patient

education materials. The patient site can share homework, food diaries, medication bottles, medical paperwork, and whatever the provider would like to see. Installation and configuration courses for the various Codecs are available in My Telehealth, and give instruction for connecting equipment to allow presentation mode.

Group Notes assists providers in documenting group sessions. The note author can specify parts of a note which apply to the entire group and parts that apply to individual patients. It does the same with encounter data. After the note and the encounter information is complete, *Group Notes* provides for a single signature for the whole group. Group Notes is a companion to the Computerized Patient Record System (CPRS) Notes tab.+

It is worth noting, the Teleprovider determines the dynamics of the group encounter, plans the layout of the room(s) for the group and camera placement, is responsible for the treatment plan, documents patient consent, writes the group note, and closes the encounter in the electronic medical record (Computerized Patient Record System {CPRS}).

Clinical Environment and Space

The Facility Telehealth Coordinator must ensure there is adequate and appropriate space where clinical Telehealth encounters will take place. There are some requirements that are standard for all clinical spaces, such as adequate space for special needs patients and/or employees to navigate using wheelchairs.

Different Telehealth clinics require different space and equipment. For example:

- A Primary Care or specialty care examination room must be fitted with an exam table and other necessary equipment.
- Privacy and confidentiality needs must be recognized and addressed.
- For gender-specific procedures and examinations, clinics need to ensure the clinical environment and spacing of the examination rooms, equipment, and female chaperones are considered (See VHA Handbook 1330.01, Health Care Services for Women Veterans).
- For TeleRetinal imaging, patient (acquisition) sites must provide the space necessary to accommodate the imaging device, workstation and supporting furniture. Rooms require darkening and, preferably, should be located in a windowless location or should use complete blackout filters over windows.
- Clinical Video Telehealth often uses group clinics for patient education and group therapy. Space is dependent on the size of the group and the clinical application.

CHAPTER 11: Clinic Based Telehealth Documentation

Documentation

As with any medical visit, intervention or encounter, clinical documentation of the event is very important. The creation of encounter forms, progress notes and consult templates for Telehealth clinic visits are essential. Some guidelines include:

- Using template notes to improve clinical efficiency and serve as a guideline(s) for appropriate health information collection.

- Encounter forms will include the location title for all visits (e.g., TeleDermatology, TeleSurgery, TeleSCI, TeleRehabilitation, etc.) and must have the appropriate Telehealth encounter codes and modifiers.
- TeleMedicine visits will require all aspects of the visit to be documented in the provider CPRS and a similar note documented in the Patient CPRS if the CPRS is not the same system. The provider note documentation will support the coding of the visit to capture workload and billinig purposes. The patient record will capture the entirety of the visit to support continuity of care. See Copy and Pasting requriments noted below. You can also refer to the Health Information Management and Health Records VHA Handbook 1907.01 July 22, 2014 for documentation and copy and pasting guidance.
- Routine visits that are not consult-specific visits will be closed with a progress note (e.g., Surgical Telehealth Progress Note, Primary Care Telehealth Progress Note, etc.)
- Progress note templates should include health factors that integrate with clinical reminders, pertinent physical exam information and numeric data, and include any patient education completed.
- Quality assurance process must be in place to ensure Store-and-Forward Telehealth images pass appropriately through the DICOM gateway and appear in VistA for the patient being examined.
- Procedures, apart from image acquisition (e.g., testing visual acuity or pupil dilation), must be appropriately documented. Safety warning for pupil dilation must be provided to the patient.
- The consult template includes reasons for the specialty consult, diagnosis codes for specialty care, information regarding patient consent and/or patient suitability for Clinic Based Telehealth interactions and other necessary information for the specialist.
- Clinic-based Teleconsultations or routine medical follow up encounters (Clinical Video Telehealth and Store-and-Forward Telehealth) are requested by remote facility providers using Interfacility Consults (IFC) or scheduled by hub site providers as a part of an ongoing provider/patient medical care plan.
- IFCs will be closed with a consult report title consistent with specific types of service provided and standardized naming conventions.
- It is important to distinguish between *"Teleconsultation"* vs. *"Telemedicine"* in the clinic and/or hospital location title. Specifically, Teleconsultation can refer to a one-time consultation through a Telehealth encounter, whereas Telemedicine is clearly a Telemedicine encounter providing ongoing care.
- Work with local CPRS Clinical Applications Coordinators (CACs) to set up the Interfacility Consults (IFCs). Your local CPRS CAC is the best person to facilitate correspondence with remote/referral site CACs, to properly set up the Interfacility Consults and to facilitate future changes to the Interfacility Consults.
- Pointer note is an option that meets all of the requirements for telehealth and is a completed note on the patient side that includes the clinical reminders, orders, etc. with a corresponding "pointer note" on the provider side. This is an example of a "pointer note" on the provider side, "The telehealth encounter was conducted on Veteran Z (name of patient) at Boise Idaho (location of encounter) on _____ (date of encounter). Please see VISTA WEB for progress note, clinical reminders and patient orders."

Procedures at both the patient and provider sites include:

- Scheduling a Telehealth clinic appointment (with the appropriate primary and secondary stop codes).
- Patient check in.
- Providers complete progress notes and encounter forms.
- Patient check out.

Patient check out includes documentation of appropriate Primary and Secondary Coding at the Teleprovider site and the patient site. The Primary Stop Code is the same as a face-to-face encounter. Secondary Stop Codes include:

- 179 Real time Clinical Video Telehealth into the home.
- 444 Compensation and Pension exam via Clinical Video Telehealth, Patient Site.
- 445 Compensation and Pension exam via Clinical Video Telehealth, Provider Site.
- 446 Integrated Disability and Evaluation System (IDES) exam via Clinical Video Telehealth, Patient Site.
- 447 Integrated Disability and Evaluation System (IDES) exam via Clinical Video Telehealth, Provider Site.
- 490 TeleTransplant, Patient Site.
- 491 TeleTransplant, Provider Site.
- 644 National Center Real Time Clinical Video Telehealth, Patient Site.
- 645 National Center Real Time Clinical Video Telehealth, Provider Site.
- 648 Real time Clinical Video Telehealth, Provider Site.
- 690 Real time Clinical Video Telehealth, Patient Site.
- 692 Real time Clinical Video Telehealth, Provider Site, same Station.
- 693 Real time Clinical Video Telehealth, Provider Site, not same Station.
- 901 TeleICU, Patient Site.

Provider (distant) sites may choose to set up Telehealth Interfacility Consult (IFC) request forms in CPRS. This process is more complicated than Intrafacility consults. This takes coordination between facilities and uses different VistA structures. This process is discussed in detail in the clinical pathway document. Key components include the generation of the consult and coordinating the patient visit using technology, room space and ensuring the patient site has all of the components necessary for the patient encounter, including the Telepresenter. One of the key steps is to ensure the distant site provider writes a progress note/report and links it to the IFC. The originating patient site will also have a record of the progress note/report in the CPRS system (without having to view the progress note under the "Remote View" option in CPRS).

This is created because the provider has access to the patient site VistA through the credentialing and privileging process, allowing the provider to document the visit, write orders and manage the care of the Veteran. The credentialing and privileging process has been streamlined through the Memorandum of Understanding between facilities (See Credentialing and Privileging Chapter).

Copy and Paste in Telehealth Documentation

Copy and paste functionality must be used with caution in Telehealth. Clinical, ethical, and legal problems may result when text is copied in a matter which implies the author, or someone else, obtained patient historical information, performed the physical exam, and/or documented a plan of care, when the author (or someone else) did not personally collect the information at the time the patient encounter is documented. Copying information from other documents in VistA, or otherwise importing information/documents (i.e., medication list or problem list) is unnecessary information which does not assist anyone reading, and makes reading the chart more difficult and time-consuming. Guidelines for *"copy and paste,"* include:

1. Never copy the signature block into another note.
2. Never copy data identifying a health care provider.
3. Do not copy entire laboratory findings, imaging reports, and other information in the medical record verbatim in the progress note when it is not specifically addressed or clearly relevant to the care provided.
4. Do not reenter previously recorded data unless specifically required for the assessment of a specific patient problem.
5. Use the functionality of importing data objects into progress notes and other documents judiciously.

CHAPTER 12: Patient Education

Informed Consent

VHA and the Telehealth Services are committed to providing a health care environment that supports respect for patients and protects their right to autonomous, informed participation in health care decisions. These essential elements of quality health care are noted below and establish a process for informing patients about Telehealth care options and obtaining their consent prior to treatment. Veterans Health Administration (VHA) Handbook, *Informed Consent for Clinical Treatments and Procedures (VHA Handbook 1004.1),* clarifies and updates VHA's national policy on informed consent. It discusses the goals, scope and key concepts related to patients' informed consent for clinical treatments and procedures and the related responsibilities of VHA staff (see, VHA Handbook 1200.05, Requirements for the Protection of Human Subject in Research, and VHA Handbook 1058.03 for VHA, Assurance of Protection of Humans Subject in Research.). Highlights include:

- Patient must be fully informed of the risks and benefits of Telehealth services and procedures.
- Patient must give verbal consent to participate in Telehealth service prior to the initiation of the Telehealth clinic sessions.
- Patient consent is documented in the encounter note by the Teleprovider.
- Patient has the right to refuse Telehealth services.
- Verbal informed consent for Telehealth services is obtained and documented at the initial TeleSpecialty appointment, and is not required for follow up Telehealth session(s).
- If permanent video or photographic recording is used during the Telehealth session, *VA Form 10-3203, Consent for Use of a Picture or Voice*, must be used and written consent obtained from the patient.

- In the event the Telehealth session is part of a research study, written consent must also be obtained per VHA research guidelines.

Introduction to Telehealth

Patients new to Telehealth Services will require information and an awareness of what to expect when receiving care using Telehealth technology. Considerations for the patient include:

- Timely access to primary and specialty care in close proximity to the patient's home.
- Decreased travel for the Veteran.
- Privacy (i.e., confidentiality, no recordings of encounter, encryption of transmission).
- Real-time/synchronous communication/interaction with remote provider.
- Technology (i.e., audiovisual devices, peripherals).
- Face-to-face follow up clinic visits may be required.

Clinical Video Telehealth (CVT) Patient Satisfaction Survey

- Clinical Video Telehealth (CVT) Patient Satisfaction surveys are forwarded to Facility Telehealth Coordinators (FTCs) at participating patient sites two times per year.
- Designates VISN and Facility locations.
- Measures responses at the Program and Specialty Clinic Levels.
- FTCs disseminate survey packets to clinic locations.
- Telepresenters distribute surveys to patients during designated time frames.
- Surveys are returned to the National Telehealth Training Center for tabulation by a pre-determined date, typically within 30 days of distribution.
- Results of surveys are reported to VISN Managers and FTCs.

Links to Related Resources

VHA Consult Policy VHA Directive 2008-056
A guidance tool to provide steps and processes for clinic consultation.

VHA Handbook 1004.10 Informed Consent and Procedures
This Handbook discusses the goals, scope and key concepts related to patients' informed consent for clinical treatments and procedures and the related responsibilities of VHA staff (see VHA Handbook 1200.5 and Handbook 1058.03 for VHA policy on informed consent for research.).

VA Telehealth: Real-Time Access to Patient Care
Video discussion related to care coordination and general Telehealth.

How to Conduct a Telehealth Exam
Video designed to help VA providers use Telehealth technology effectively.

CHAPTER 13: Workload Capture

In order to monitor clinical activity and to undertake routine outcome measurements that ensure clinical quality, it is critical all activity for Telehealth be coded correctly. Telehealth workload is captured in outpatient encounters, similar to other outpatient workload VHA. Typically there aare two clinics established for the majority of Telehealth visit with specific coding. Specific coding is necessary to capture the workload done in the various patient and provider site scenarios and to acknowledge it was accomplished via Telehealth. *It is important to note, 1) in Store-and-Forward Telehealth when the acquisition and reading sites are located on the same campus, or, 2) in Clinical Video Telehealth the patient and provider sites are located on the same campus, DSS has recently created the 699 code (provider same site) paired with the 690(patient site), or 3) 689 NON VA sites with patient side support and 179 CVT into the home with no patient site support.*

Coding for Clinical Video Telehealth and Store-and-Forward Telehealth is different, but they both follow a similar model. General rules include:

- Patient and provider site of the encounter must have the same primary stop code.
- Secondary Credit Stop code for Clinic Based Telehealth is determined by the location of the patient and provider, as well as indicating whether it's Clinical Video Telehealth (CVT) or Store-and-Forward Telehealth (SFT).

Clinical Video Telehealth (CVT) is simultaneous and the patient encounter and provider encounter should occur on the same day and have the same primary code. In Store-and-Forward Telehealth (SFT), the patient and the provider are separated by distance and time and, therefore, the patient and provider encounters will ordinarily be on different days. The business rules for including Clinical Video Telehealth workload in Veterans Equitable Resource Allocation (VERA) patient classifications stipulate CVT encounters must occur and be paired on the same day.

Illustration of the different locations the patient and the provider can be located is presented in Figure 4. The coding is developed to capture the different types of locations of the providers and patients. The Centers for Medicare and Medicaid Services (CMS) use different terminology for Telehealth locations. CMS refers to the patient site as the *Originating Site (OS)* and the provider site as the *Distant Site (DS)*.

Coding is available for Clinical Video Telehealth in all of the scenarios in Figure 4. Coding for Store-and-Forward Telehealth is available in scenarios 1 through 2 in Figure 4. One should seek local guidance from facility Heath Administration Service (HAS) for appropriate coding and workload capture. This ensures the facility receives accurate workload credit and assists National and VISN analysis of outcomes and financial impact of this practice.

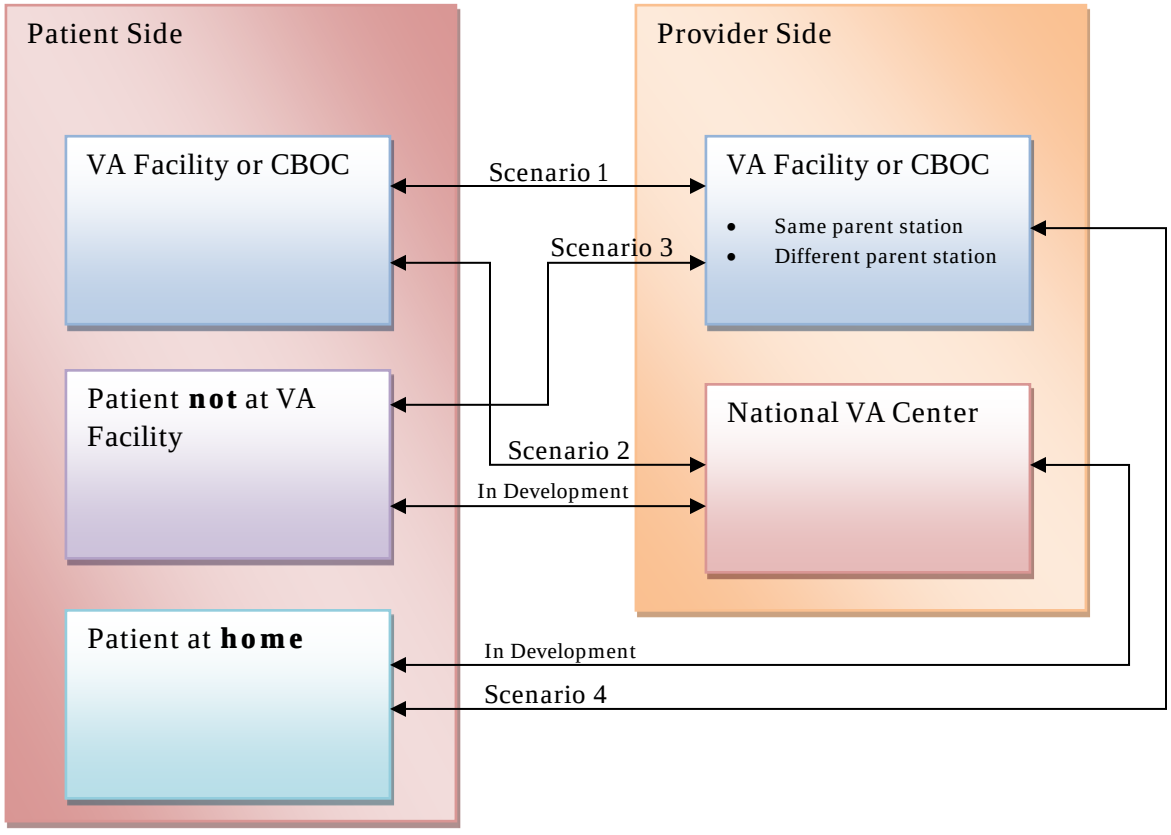
Specific clinic locations/titles need to be set up prior to the implementation of the Telehealth visits. Staff at the provider site and patient site of the encounters needs to be informed of the correct clinic location/title they need to use for the scenarios in Figure 4. When staff selects a clinic location/title in CPRS, they cannot see the underlying stop codes that are connected. Therefore, the names of the clinic location/title need to be informative and concise to assist in the correct selection. It is important the critical components of the clinic title be visible in the screen seen by the provider. A written handout of the available clinic titles and what they should be used for should be provided to the staff member. New or relief staff should also be instructed on the clinic location/title they should be using.

There have been occasions where new staff continues to use the clinic locations they had in their previous position for documentation, which will cause coding and workload capture errors.

For new Clinic Based Telehealth programs involving multiple VA facilities, there may be administrators who have valid concerns workload credit is appropriately allocated for the patient site (originating site) vs. provider site (distant site) for Telehealth encounters. It is important to involve a local Health Administration Service (HAS), Health Information Management Service (HIMS) and Decision Support System (DSS) contact to disseminate and provide advice on changes in Telehealth coding guidelines.

Closing the encounter is also an important step in the process. If all else is done correctly and this step is neglected neither site will receive workload credit. The patient site must close their encounter with the appropriate procedure code, and, it is noteworthy, *the primary diagnosis code at the patient site and the provider site* ***must match.*** Once again, additional information related to Telehealth coding is available through DSS, HAS, HIMS and the Telehealth Services SharePoint site.

Figure 3. Coding Between Patient and Provider Locations



Telehealth Data Management

This relates to data collected from the patient, providers, staff workload data, and program performance and outcomes data. Based on national and VISN strategic goals related to Clinic Based Telehealth, quality indicators should be set with the purpose of monitoring and measuring performance and efficiency of Clinic Based Telehealth practices.

At the facility level, data may be extracted from VistA or with a member of the DSS team for workload review for that facility. Based on pertinent established stop codes, these may include data by specialty clinic, number of encounters, number of visits and number of unique Veterans served via Clinic Based Telehealth. This data may be analyzed quarterly or annually, using comparisons to determine growth and expansion of Clinic Based Telehealth services. Another use for workload data review is to determine accuracy of coding. In addition to locally-developed reports, there are national reports.

Telehealth Workload Data Cube

The Telehealth Services, in collaboration with the VHA Support Service Center (VSSC), has developed a national Telehealth data cube for Clinic Based Telehealth activities that includes:

- An easily accessible view to track progress towards workload targets.
- Workload capture at both the patient and the provider sites, with the ability to match patient encounters to provider encounters for a complete pair. Workload is available at VISN, Facility and CBOC levels.
- Ability to identify patient site and provider site encounters that cross facilities or VISNs.
- Ability to identify coding errors that may hinder achievement of workload targets or inclusion in VERA patient classification.
- Easily accessible view to review the clinic areas coding Telehealth encounters.
- Identify the time between when the image is taken in Store-and-Forward Telehealth (SFT) and when it is read.
- Ability to drill down to SSN level.

The VSSC Telehealth Cube has an associated Cube Overview document that provides additional information on each of the pre-formatted reports; as well as information to find out what additional education is available for cubes, in general, and education specific to the Telehealth Cube. The associated Data Definitions document provide information on:

1. Data sources and business rules of the cube.
2. Specific validation to ensure accuracy of the cube.
3. Guidance for users to validate activities at station or VISN levels.

It is vitally important for VISNs and VAMCs to review their data and address coding or data capture issues that may hamper the capture of workload used for performance targets, VERA capture or quality management analysis.

Links to Related Resources

Allocation Resource Center (ARC) website
Provides information on VERA

Chief Business Office (CBO) Website
Provides detailed information on copays.

Decision Support System (DSS) Website
DSS – Information on DSS identifiers, also called Stop Codes

VHA Support Service Center (VSSC) Website
VHA Support Service Center Telehealth Data Cube provides reports for Clinical Video Telehealth and Store-and-Forward Telehealth.

CHAPTER 14: Telehealth Technology

Technology

The purpose of this section is to explain how Clinical Video Telehealth (CVT) and Store-and-Forward Telehealth (SFT) technologies and technical support pathways are a collaboration between the Telehealth Program, Biomedical Engineering Departments and the Office of Information and Technology (OIT). The Technology and Pathway section defines/outlines technical expertise and how the technology, support teams and clinical staff interact to provide Telehealth technical support and state-of-the-art technology to the clinical users.

The scope of this section provides:

- Role and functions of Clinical Enterprise Videoconferencing Network (CEVN).
- Role and functions of Telereader and VistA Imaging.
- Telehealth Technology Advisory Committee (TTAC).
- Technology procurement.
- Planning, deployment, and inventory.
- Cleaning guidelines.
- Information security.
- How the National Telehealth Technology Help Desk (NTTHD) supports Telehealth programs.
- Compliance.

There are a variety of technologies currently available for use in Clinic Based Telehealth applications. These include various codecs (coder-decoders), cameras and peripheral devices. Standardization of technology is important for multiple reasons, including connectivity, warranty and maximization of use. The VISN Telehealth Technical Advisory Committee will determine a standard system configuration specific to clinical applications. .

Clinical Enterprise Videoconferencing Network (CEVN) for CVT

Established in 2009, the VHA Clinical Enterprise Videoconferencing Network (CEVN) represents the clinical component of the larger Enterprise Video Teleconferencing Network (EVTN). The CEVN provides telecommunications capability and clinical videoconferencing technologies for Telehealth.

Telereader and VistA Imaging Applications for SFT

The clinical practice model for diabetic retinopathy screening and surveillance incorporates VistA for ordering, scheduling, consult creation, (local and Interfacility), reminder dialogs for obtaining health factors, remote data view, as well as the day-to-day operations of patient health care. In parallel to the VistA system, VistA Imaging, an FDA sanctioned medical device, is the clinical imaging interface designed and developed by VHA to incorporate image and document data, and attach said data to the Veteran's electronic medical record.

VistA Imaging globally provides specific applications used for SFT. Those applications are: Telereader, VistA Imaging Display and VistA Imaging Capture. The combined use of VistA and VistA

Imaging provides comprehensive electronic support for the Diabetic TeleRetinal Surveillance screening program and the TeleDermatology program.

The basic model, whereby care is delivered, patients are assessed and digital images acquired in an eye or Primary Care clinic by certified imaging staff. The resulting image studies are available for viewing locally or remotely using Remote Image View by eye care professionals through the Telereader and VistA Imaging Display applications. The eye care specialist evaluates the image data and reports on that data using the consult template.

The Telereader application was designed to work with the consult request tracking package in VistA and, as a result, the Telereader has an unlimited scope of use. Building on the successful use of Telereader for the TeleRetinal screening program, the Telereader application was used for national rollout of the TeleDermatology program. The Telereader application displays a list of sites the specialist has been assigned, as well as a list of image studies from those assigned sites. In addition to the listing of unread studies, the application will also display a list of studies that have been completed for the past 90 days.

VA has updated the VistA Imaging Capture client to incorporate the capture of Dermatology images using an information standard of practice that ensures the interoperability of capture, storage, retrieval and workflow. Development and release of the software patch (known as Mag *3_0P106, or P106) allows certified imagers in Dermatology at an acquisition site the capability to capture dermatological images based on consult requests from Dermatology or Primary Care. Unique to the Telereader application, a specialist can *"lock"* a study which gives control of the consult to that specific specialist while allowing other specialists to view the study and consult; when a study is selected, the Computerized Patient Record System (CPRS) and VistA Imaging Display open automatically providing easy access to view the consult and image data.

CVT Technology

Synchronous Video Teleconferencing (VTC) is a common method of communication in business and government. Telehealth applications of VTC are generally based on the same standard Video Teleconferencing equipment and software used in business and government, with some adaptation. Adaptations are primarily in the area of peripheral accessories.

Video Teleconferencing (VTC) requires high capacity connections (high bandwidth) because of the volume of data exchanged between the two endpoints. These are connected over Internet Protocol (IP) networks. The Enterprise Video Teleconferencing Network (EVTN) is used for VA videoconferencing and the Clinical Enterprise Videoconferencing Network (CEVN) is the secure network for Telehealth encounters.

Clinical Video Telehealth systems can be equipped with uniquely-designed diagnostic clinical peripherals which include otoscopes, general examination cameras and stethoscopes.

Synchronous Clinical Video Telehealth can be used for:

- General medicine.
- Specialty care.

- Mental Health.

A Clinical Video Telehealth system has six major components and compatible Clinical Video Telehealth systems are required on both ends of the video call:

- Video Teleconferencing CODEC
- Video Camera
- Video Monitor (1 or 2)
- Microphone
- Speakers
- Peripherals.

1. CODEC

CODEC is short for Coder-Decoder, and is the heart of the Video Teleconferencing (VTC) system. It compresses the two-way audio and video streams sent over the communications network. The CODEC also provides the means to connect all devices used in a Video Teleconferencing system, such as cameras, microphones and peripheral accessories.

There are three types of systems:

1. The room/cart systems:
    a. Separate codec, monitor microphone and audio system/speakers.
    b. Used for conferences/group encounters/auditoriums.
    c. Installed on clinical and patient education carts.
2. Desktop systems (all-in-one):
    a. Includes codec, camera, monitor, microphone and speakers in one unit.
    b. Used for TeleProvider offices.
    c. Administrative offices.
3. PC software and Webcam systems:
    a. TeleProvider offices/laptops.
    b. CVT into the Home.
        i. Veteran site
        ii. Teleprovider site

Figure 6. Examples of Codecs/Cameras

C-40 (Conference rooms/auditoriums)

Clinical Cart (exam rooms)

Patient Education Cart

(Conference/Training Rooms

EX60 and EX90 (Provider desktop)

Jabber Software

(CVT into the Home)

Web Cameras for use with Jabber Software

(CVT into the Home)

Logitech C920

Cisco HD Precision Camera

ns Manual]

2. Video Camera

The video camera is specially designed for Video Teleconferencing applications. It offers pan (side-to-side), tilt (up-and-down) and zoom (PTZ) controls; the user can easily point the camera at the appropriate subject. It also offers control of the zoom for a wider or tighter angle of view. (Pan/Tilt/Zoom is often abbreviated PTZ.) The focus is automatically adjusted by the camera. Most systems provide connections for two or more video cameras, facilitating the addition of specialized diagnostic cameras.

Camera Control: Many Video Teleconferencing systems allow control of the camera from the Provider site (far end site) of the connection. This is especially useful for group presentations and Telehealth consultations. The consultant has direct control over the view on the patient site (near end site) monitor. Far-end camera control ensures the consultant can frame the subject as needed, and avoids problems with the subject being "cut off". Far-end camera control has become a standard feature on CVT systems.

3. Video Monitor

Each endpoint of the Video Teleconferencing connection has at least one video monitor. Many systems allow connection of two monitors. Systems with a dedicated CODEC most often use a standard video monitor, projector or large-screen LED TV.

4. Microphone

The far-end and the near-end sites have microphones.

5. Speakers and Headsets

Speakers allow the Teleprovider, Telepresenter and the patient to hear one another. The Teleproviders should be able to control the volume at the provider site when listening to heart, lung, and bowels sounds using the IP stethoscope at the patient site. Headsets are appropriate in a Clinical Video Telehealth encounter when patient privacy may be a concern, patient and/or Teleprovider may be hard of hearing and/or extraneous noise may interfere with the clinic visit. Noise-cancelling headsets are recommended for the Teleprovider when listening to heart, lung, and bowels sounds using the IP stethoscope at the patient site.

6. Peripheral Accessories

1. Clinical Video Telehealth system peripherals are available for specialized applications. Telehealth peripherals used in CVT applications include: Diagnostic peripherals - many common diagnostic scopes and other devices have been adapted for use in CVT encounters. They generally include a light source and a video camera. Two common peripherals include an otoscope and a hand-held examination camera.
2. IP Stethoscope - perform auscultation over distance.
3. HD Still Camera - capture still images.
4. Document Cameras - general purpose device to share documents, ECG's, imaging studies, graphs and other materials.

SFT Technologies: TeleRetinal Imaging (TRI) Systems

The National TeleRetinal Imaging (TRI) Screening program is designed to access patients who have no documented record of periodic eye examinations and may be at risk of vision loss. Appropriately, TRI cameras are suggested to be located in Primary Care areas. However, imagers have skills particularly unique to the various aspects of eye care and, for this reason imagers are required to know other aspects of eye clinic function, in addition to TeleRetinal imaging. It is recommended imagers are supervised clinically by the eye clinical champion, lead imager, or TeleRetinal master preceptor regardless of camera location. Ideally, the location of a camera should be in a separate division from the location of the reading center. The most important factor in the location of the program should be the needs of the patient population at the facility.

- A TRI system has two major components, located at either the image acquisition (patient) site or the reading site:
- Image acquisition – non-mydriatic fundus camera.
- Image review - reading workstation with diagnostic quality display monitor.

1. Image Acquisition

Acquisition systems (cameras) are typically designed as non-mydriatic fundus cameras that are DICOM compliant and VistA compatible. Systems must have the appropriate DICOM software installed to enable imaging studies to seamlessly transfer electronically from the local workstation to the facility's VistA Imaging server. Acquisition of these software programs should be coordinated with the Office of Information and Technology (OIT) staff at both the imaging and reading sites, as well as the local Clinical Engineering Team. Since these acquisition workstations are medical devices, the Clinical Engineering Team should be the managers of the implementation and maintenance process (es). Adding a Telereader Acquisition Site is done by OIT support staff, who are responsible for the installation and configuration of the software. The installation of the software requires specific VistA security "keys." Refer to the following link for additional information, *Telereader the setup guide*.

Figure 4. Examples of Non-Mydriatic Fundus Cameras

2. Image Review

Reading stations for Store-and-Forward Telehealth programs must meet minimum requirements for resolution and monitor size. At a minimum, the standard reading monitor is a 21-inch Liquid Crystal Diode (LCD) system with 1280 x 768 screen resolution. Reading stations should be integrated with

the local facility computer network, since, in addition to reviewing imaging studies, readers will be entering notes and reporting findings in CPRS. The reader will require access to remote data. Reading systems may also be set up with dual, side-by-side monitors, with one computer station used for the purpose of toggling more quickly between studies. Available upgrades and patches to VistA Imaging must be pushed out to reading workstations when applicable. Acquisition of these programs should be coordinated with the OIT staff at the reading and image acquisition sites, and at the Silver Springs VistA Imaging development group, as needed.

SFT Technologies: The TeleDermatology System

Image Acquisition

Figure 5. Example of a Handheld Digital Camera for TeleDermatology

Various camera models, with a variety of features and capabilities, are available from several manufacturers. Constantly changing technology rapidly renders any effort to specify a particular brand and model of camera obsolete. Therefore, minimum features and specifications are discussed here. High-resolution photographic images should be taken with a digital camera having a minimum resolution of 1024 x 768 pixels (J. Am. Acad. Dermatology. 1999; 41:749-56 and Position Statement on Telemedicine, American Academy of Dermatology and AAD Association.

Much higher resolution point-and-shoot digital cameras can be purchased at an affordable price (less than $1,000). These resolutions are often not necessary, are associated with longer transfer times and increased storage requirements. In general, a camera with at least eight (8) megapixels should offer enough flexibility in resolution to meet most clinical needs. Other important features of a camera:

- Relatively easy to operate for an average person;
- Macro mode, allowing optical (not just digital) close-up view of skin;
- Control of the flash or no flash options; and
- Method of image storage (e.g., flash card, other).

1. Image review

Image review standards and requirements for TeleDermatology are concordant with those of TeleRetinal imaging, and other Store-and-Forward Telehealth disciplines.

Telehealth Technology Advisory Committee (TTAC)

The TTAC is a VISN-level committee chartered by the VISN Telehealth Council and meets monthly. The Telehealth Technical Advisory Committee provides an interactive forum for Service Level

Agreement (SLA) stakeholders to identify issues related to Telehealth technologies, communicate to resolve outstanding issues, recommend policy with regard to Telehealth technologies, develop and implement operational procedures related to Telehealth technical support and set Telehealth technology standards.

Telehealth Technical Advisory Committee membership is comprised of staff from all Stations, with varied backgrounds, including technical, clinical, engineering and clerical/support disciplines. Each station will have a Telehealth program, Biomed and OIT representative serving on the Telehealth Technology Advisory Committee.

Technical Support

A Technical Support Pathway is extremely important to ensure adequate planning and technical provisions are in place and made available in the event technical difficulties arise during a Telehealth encounter. Clinical Video Telehealth encounters are synchronous events and, in most cases, require immediate action from technical support staff to avoid patient encounter interruptions or cancellations due to technical difficulties.

Technical support can be provided by the National Telehealth Technology HelpDesk (NTTHD). The VHA National Telehealth Technology HelpDesk (NTTHD) utilizes a systems approach to identify and troubleshoot problems involving network, videoconferencing systems, peripheral devices and other elements with end-users. Registered endpoints in CEVN, can be accessed by NTTHD utilizing the IP address of the codec. Inquiries and/or requests for help are addressed by NTTHD (866 651-3180) via a Trouble Ticket Tracking System. These tickets are assigned appropriately, tracked to completion, resolutions posted and closed. The NTTHD staff coordinate and triage technical support issues related to the level of support.

NTTHD can assist with:

- CVT equipment alias and port activation.
- Preliminary network connectivity troubleshooting.
- Remote management of Endpoints via Web interface or Telepresence Management Suite (TMS).
- Troubleshoot hardware failure.
- Software upgrades.
- Equipment transfers.
- Telepresence Content Server requests.
- Information on Service Maintenance Agreements.
- Troubleshoot/support issues with CareTone Internet Protocol Management System (CIMS).
- Jabber accounts.
- Connectivity issues.
- Troubleshoot TRI/VICC SFT issues.
- CapSure VistA troubleshooting.
- Transportable Examination Station (TES) related issues.

Biomed and OIT departments will provide a level of support related to equipment deployment, repair, maintenance and replacement.

Technology Procurement

After a list has been developed for all the necessary technical equipment and peripheral devices needed for a Telehealth program, the following processes should be considered for procurement:

- Identification of the correct funding appropriation (OIT vs. Medical Services). Current VA guidelines state, "Telemedicine modalities exclude videoconferencing equipment unless the videoconferencing equipment is used exclusively for patient care communication synchronously." Therefore, Clinical Video Telehealth videoconferencing units are "non-OIT" and can be purchased with funds from Medical Services.
- VA's Acquisition and Materiel Management Service (AMMS) staff are assigned to procure equipment for a multi-site Telehealth programs.
- The acquisitions competition process is no longer necessary when AMMS uses the National Blanket Purchase Agreement (BPA) for purchasing equipment, which may reduce delays in the purchasing process.

The VISN Telehealth Manager can assist with the selection of Telehealth equipment and subsequent procurement process (es). Telehealth Services, in cooperation with VA logistics, contracting, and VISN Telehealth managers, have developed contract vehicles including, a National Blanket Purchase Agreement (BPA) to facilitate the technology acquisition process. VHA Telehealth Services strives to update these contracting vehicles to ensure most up-to-date technologies are available to the field.

Technology not available through the BPA must be approved by the National Telehealth Governance Board (NTGB), Clinical Video Telehealth (CVT), Sub Group. Their role is to organize, coordinate and monitor aspects of CVT operations that interface between clinical care, information technology and medical device management. It has a particular role in the planning, implementation, and establishing standard operating procedures for CVT-related technologies.

Planning, Deployment and Inventory

In order to provide adequate technical support to end users, a comprehensive and accurate inventory of technology assets will be maintained. The Telehealth program will complete and maintain a database of existing Telehealth endpoints registered to the Clinical Enterprise Videoconferencing Network (CEVN). Data will include model, make, serial number, IP address (if applicable), Point of Contact, site information, EE number and Service Maintenance Contract information.

Before purchasing new equipment, a review of existing Telehealth and administrative equipment should be completed. A decision should be made to determine if new equipment and/or peripheral accessories are needed.

Cleaning Equipment

Telehealth technology and equipment must have a **locally** established Standard Operating Procedure for cleaning equipment utilized in Telehealth encounters. **Local** Sterile Processing Department (SPD) **must** provide facility guidance.

Information Security

The facility Information Security Officer (ISO) should be involved in the planning stages to ensure the proposed Telehealth program is Health Insurance Portability and Accountability Act (HIPAA) compliant.

OIT Informatics, Biomedical Engineering and Enterprise Systems Engineering Support

OIT and Biomedical Engineering at the VISN and local levels should be involved in the planning phase of new Telehealth programs. The VISN and local Chief Information Officer's (CIO's) support is critical to the success of Telehealth initiatives. They will know current problems, future plans for the system and the bandwidth available. This information will minimize potential technical challenges.

Enterprise Systems Engineering (ESE) is responsible for the overall CareTone Internet Protocol Management System (CIMS) server, including server deployment and maintenance, software upgrades, and database backups.

Compliance

Equipment used in Clinic Based Telehealth (CBT) programs must meet Federal Drug Administration (FDA) standards, and maintained to meet VHA and regulatory standards for patient safety, information security and infection control.

Links to Related Resources

National Telehealth Governance Board (NTGB)
Assist in establishing purpose, structure and responsibilities of the group.

End User Support/SLA (National and VISN)
Provides a better understanding of relevant issues and clarifies responsibilities of each stakeholder to facilitate delivery of Telehealth services by providing technical support required to design, deploy and operate Telehealth programs and activities

Blanket Purchase Agreement
A general guide for ordering video equipment and maintenance.

Clinical Enterprise Videoconferencing Network (CEVN)
Describes the function of the system and its capabilities.

Technology Guides
Guide to assist in your planning, selection and installation of equipment. Reference the VHA Telehealth Document Library for specific information related to installation and configuration of Telehealth technologies.

CHAPTER 15: Information Outreach

As a basic principle, information outreach is about communication. Information Outreach strategies are aimed at encouraging people to try or continue using particular products or services. Business managers should carefully plan marketing strategies and performance to keep their market presence strong, acceptable to customers and to obtain desirable buy-in to an innovative product.

Information Outreach is based on the importance of customers to a business. An important principle is to ensure policies and activities are directed toward satisfying customer needs. A marketing strategy identifies customer groups one will be working with and to whom the business will better serve. Successful marketing requires timely and relevant market information is disseminated to all possible areas. Setting a marketing strategy will help focus on target markets Clinic Based Telehealth can best serve.

Every outreach program contains these key components:

- Description of products or services.
- Target customers.
- Information promotion and dissemination.
- Performance evaluation.

Promoting the Telehealth program is not different. It begins during the planning phase and should include internal and external stakeholders. Sharing information early will also encourage buy-in from health care providers and other clinicians, whose collaboration is vital to the success of the program.

Describing Telehealth Services

It is important to define and describe Telehealth for everyone to have a clear understanding of the scope of practice and its application. This will be the educational component of the outreach strategy. Telehealth has been practiced in VHA for over a decade and there is still a need for increased penetration into service delivery. This education needs to be customized to patients, providers, Telehealth coordinators and executive leadership.

Customers

Clinic Based Telehealth serves the Veteran and the provider because it facilitates the provision and delivery of care. This clinical practice also involves several others. Marketing strategies need to be designed to:

Target Patients - Identify patient care issues – distance, no-shows, and care-giver burn-out. For the application of any new program, appropriate steps must be taken to ensure the intended use of Telehealth; patients will receive care enhanced by Telehealth related processes. Identification of patients includes recognition of a diagnosis or issue that may benefit from an alternative form of health care. Preparation will include utilizing a checklist to support admission of the patient into a particular modality, to identify a patient's physical and cognitive capabilities, diagnosis and history of admission or problems, and disease management issues. Inclusion and exclusion criteria should be

developed and utilized as a standard for providing care (see Clinical Guidance). Once standard criteria is organized and identified, local Decision Support System (DSS) staff can be helpful in extracting information to assist in populating new programs.

Collaboration - VHA is collaborating with a number of organizations in developing Telehealth related activities. For example, Department of Defense (DoD) and Indian Health Services (IHS) have been working collaboratively on multiple VHA Telehealth initiatives. Collaborative efforts lead to stronger programs as the intellectual and physical capital of participating platforms is leveraged and can be structured to more effectively meet program goals.

Program Promotion

Training resource and program promotion strategies include advertising and direct customer interaction. Dissemination of information through multiple venues is essential. Some of the elements to use include, but are not limited to:

- Direct mail, with informative letters, flyers, brochures, etc.
- Video presentations.
- Telehealth Services Intranet provides information to assist in marketing.
- When marketing to leadership and business officers, share outcomes data, success stories from colleagues and the performance measures and monitor requirements set for Clinic Based Telehealth.
- Educational programs, literature and reports, technology fairs, luncheons or related events can be used to build a base of support for the program.
- Press releases to the local media-newspapers, TV and radio stations should be considered, in collaboration with the local Public Affairs Officer.

Evaluation

After implementing the marketing program, it is important to evaluate its performance. Every program should have performance standards to compare with actual results. At least quarterly, evaluate if one is moving forward with the plan. Check the following:

- Is the program doing all it can to be customer-oriented?
- Are expectations and goals met?
- Are customers satisfied?
- Are customers, business partners and executive leadership well-aware of Clinic Based Telehealth opportunities?
- Is everyone engaged in supporting Clinic Based Telehealth operation and growth?

Links to Related Resources

Clinical Video Master Document Library
A resource for the application of Telehealth in VHA.

Store-and-Forward Telehealth Patient Satisfaction
Important to know what Veterans think about the value of Store-and-Forward Telehealth programs. Their comments will help one learn how to improve care to all Veterans. This survey is currently undergoing official approval and will be released soon with official guidance for its use.

VHA Telehealth Services website
An informative site which contains links to important Telehealth calendars, documents, and points of contact. Also included on the site are links to the Telehealth Clinical Specialties web sites.

CHAPTER 16: Education and Training

Education and Training

Training is the cornerstone of successful Telehealth programs. The single greatest challenge, when integrating Telehealth systems into the existing traditional clinical environment, is ensuring clinicians are comfortable using new technologies and are aware of the associated clinical and business aspects. The National Telehealth Training Center has developed multiple sources for training and an extensive library of resources. More information and resource links can be found in the Staff Education and Training Section.

National Telehealth Training Center and Telehealth Educational Opportunities

VHA Telehealth Services had two national Telehealth training centers focused on Clinic Based Telehealth Training. Established in 2005, the Clinical Video Telehealth Training Center (CVTNTC) and the Boston Telehealth Training Center (BTTC) provided training and consultation for Clinical Video Telehealth (CVT) and Store-and-Forward Telehealth (SFT) programs. Establishing Telehealth programs, the use of Telehealth technologies and supportive peripheral devices, and how to provide care and consultation using Telehealth between outpatient clinics, Non-VA care centers, and medical centers is part of the Training Center's mission. The National Telehealth Training Center and VHA Employee Education System (EES) provide educational opportunities in a number of modalities, and, primarily, in a modular format.

Independent learning experiences are available via:

- Web-based courses.
- Video available on-demand on Content Distribution Network (CDN).
- VA Knowledge Network (VAKN) live and recorded satellite broadcasts.
- Local, regional and national conferences.

Additionally, the National Telehealth Training Center provides general and role-specific training activities via:

- Live videoconference and web-conference training sessions.
- Mentor/coach programs.
- Communities of Practice/collaborative learning groups and discussion boards.
- Telehealth laboratories to simulate the experience in the field.

Clinical Video Telehealth applications require the following training:

- How to operate videoconferencing equipment.
- How to connect peripheral devices for use with videoconferencing equipment.
- Telehealth operations, management for success.
- Telehealth operations, the Patient Encounter.
- Web Based Courses.
- Live Videoconference training and consultation.
- Live Meeting Training.
- Just-in-Time Training.

- Videos.
- Printed Resources.
- Satellite Broadcasts.

Store-and-Forward Telehealth (SFT) training includes web-based and face-to-face training by a trained SFT Master Preceptor.

Store-and-Forward Telehealth applications require the following training:

- Ocular anatomy primer.
- Overview of Diabetes and Diabetic Retinopathy.
- Common non-Diabetic related eye findings.
- Image acquisition.
- Image triage.
- Quality assurance for DICOM and image deletion.
- Image deletion.
- Overview of Conditions of Participation.
- Patient education.
- Telehealth operations, coding, encounters.
- Camera trouble shooting and maintenance.
- Electronic resources.
- Web Based courses.
- Dermatology background.
- Consult pathway/imaging protocol/techniques.
- Quality assurance/Patient safety.

Preceptor Programs

The Preceptor programs are designed to develop skilled, confident and successful preceptors who know how to cultivate the Telehealth communities' talents and to expand Telehealth throughout VA. The Preceptor programs have a strong emphasis on the development of leadership skills necessary to support the clinical, business and technology infrastructure at the local level. Preceptors are instrumental in directing field staff to the training and assessing competencies related to Telehealth operations. Additional information on the preceptor programs can be found at the VHA Telehealth Services site, under the *"Communities"* tab.

Telehealth Services utilizes two virtual learning environments for preceptors, as well as for members of the Telehealth virtual team. Blackboard integrates learner registration, tracking of the training and a reporting system, for managers to be sure members of their team have completed requisite training via Blackboard. The VA Talent Management System (TMS) is an online training and employee development platform, when enables VA employees to search and register for courses, and to track professional development through a single, integrated database. User names and passwords are required to enter these education and training systems.

Staff Competencies

Staff competency refers to the team members' usual clinical position and to a level of proficiency in applying those skills in a Telehealth setting. A minimum level of technical competence must be achieved by all staff: clinical, support and administrative. Each of these competencies can be met through completing web-based courses on Clinical Video Telehealth, as well as meeting criteria demonstrated to a trained observer. Staff competency can be monitored through credentialing and privileging, and should be included in their annual performance evaluation.

Orientation

New or incoming staff should meet the minimum standards of familiarity with the Telehealth environment and technical operations before seeing patients. Staff can complete this orientation via web-based training modules, clinical shadowing experiences, and competency skills assessment with certified preceptors or the National Telehealth Training Center. Every staff member is encouraged to practice operation of the technology, even if this isn't a regular part of their job function. Cross-training enables staff to cover when others are absent. Orientation is role specific and required training is available at the VHA Telehealth Services web page.

CHAPTER 17: Patient and Caregiver Education and Training

It is important to ensure that Veterans that have never been exposed to Clinic Based Telehealth are oriented to the telehealth program environment and understand their rights, responsibilities and telehealth policies. Patient and Caregiver Clinic Based Telehealth orientation, education and training are intended to provide the Veteran with a comprehensive array of information and resources. The mission of telehealth is to provide the Veteran the right care at the right time and place. The Veteran centric care model supports and encourages Veterans to be full participants in their care and self-management. To this end, the patient is provided information and training regarding telehealth and how their care is impacted through the telehealth modalities. A thorough explanation on the use of Clinic Based Telehealth and its uses of new telehealth technologies must occur. The orientation and education touches on each of the following areas:

- **Cost**: total cost of care is reduced when patient and healthcare provider travel expenses are considered. Costs are also reduced if patients have the support to manage their own care, or get care early in the disease process.
- **Access**: by providing a telehealth endpoint closer to where the Veteran lives, there is greater access to specialty care. For example to see a cardiologist, neurologist, or surgeon for follow–up after surgery without traveling to the distant site.
- **Quality**: studies measuring quality of telehealth compared to inpatient visits indicate no significant perception of difference.
- **Patient Satisfaction**: surveys gathered after each telehealth encounter show a high level of satisfaction, particularly as it relates to cost and improved access.

The Following Links Will Direct You to Related Resources

New Veteran Orientation Telehealth Guide
A document to assist you in the delivery of new Veteran orientation that includes telehealth program overview

Teleprovider Training

Telepresenter Training

CHAPTER 18: Quality Management

Conditions of Participation

Telehealth Services is responsible for an internal accreditation process for the Quality Management of Telehealth programs within VHA. The standards utilized for Telehealth programs are known as the Conditions of Participation (COP), and are required for Telehealth programs operating within VHA.

Conditions of Participation's core standards apply to all Telehealth programs. There are additional program-specific standards applicable to Clinic Based Telehealth programs. VISNs must ensure full and successful implementation of these core and program-specific expectations in order to achieve and sustain the VHA Telehealth Services designation status. A Conditions of Participation review process is conducted via periodic VISN-wide site visits and reviews (about every two years) by the Telehealth Services Quality Management Team.

The Quality Management Team provides consultation and linkage to both field and system expertise to assist in this rapidly changing area of patient-centered care. The designation process is essential for any model or application of Clinic Based Telehealth, regardless of organizational alignment. With each cycle of VISN Conditions of Participation reviews, the requirements for conformity are successively escalated and, in some cases, additional conditions are added.

The internal accreditation process, using the Conditions of Participation, has been thoroughly reviewed with the Joint Commission.

Conditions of Participation documents and other review tools may be found on the Telehealth Services Quality Management SharePoint site.

External Accreditation

The Joint Commission and other external accrediting bodies may review some or all components of Clinic Based Telehealth programs in the course of their surveys. Clinic Based Telehealth programs might be identified during a typical tracer activity during a survey of any type. This may lead to review of any aspect of the Clinic Based Telehealth program including, but not limited to: privacy/confidentiality, infection control practices, clinical documentation, orientation/training/competency, performance improvement, credentialing and privileging, etc.

Performance Improvement

Conditions of Participation (CoP) require each VISN identify and monitor core quality and performance indicators for its Clinic Based Telehealth program sites. These indicators might be related to a variety of clinical, business or technology areas of interest, to include, utilization, access, clinical outcomes, cost, quality of life, patient satisfaction, functional status, or provider satisfaction. Whenever possible, indicators should be collected from electronic data and available for review and tracking.

Using data from the performance improvement process, each program should communicate program experiences to program staff and others as appropriate, identify opportunities for improvement and develop action plans, as necessary, to ensure continuous program improvement. Utilization of the same indicators across similar Clinic Based Telehealth programs within a VISN would provide the ability to compare and benchmark results. Use of a VISN-level score card for reporting of performance data and outcomes is highly recommended.

Some suggested topics for continuous performance improvement initiatives include:

Clinical -

- Specific clinical outcome and process measures for the patient population served by the program.
- Equivalency of outcomes achieved for care using Clinic Based Telehealth compared to customary face-to-face care.
- Follow up time from consult to treatment.
- Number and/or percentage of unreadable images by imager and location.

Business -

- Track and trend penetration by unique patients and rurality, and number of encounters.
- Track number and type of specialty clinics using Clinic Based Telehealth.
- Track and trend percent compliance with matching workload capture across all Clinic Based Telehealth programs and sites on both the originating site (OS) and distant site (DS).
- OMB Approved Patient Satisfaction Survey results.
- Provider Satisfaction Survey.
- Improved access to care.
- Impact on time to next appointment for new/established patients.
- Changes in no-show, cancellation, and/or unscheduled visit rates.
- Utilization parameters such as admissions, length of stay, ER visits, and/or Primary Care visits.
- Return on Investment (ROI).
- Likelihood patient would have traveled to another VA site for care in lieu of Telehealth.
- Avoidance of miles traveled by patients and/or providers.
- Avoidance of travel pay costs to patients and/or providers.
- Technology.
- Number and/or percentage of images located in TeleRetinal imaging workstations.
- Number and/or percentage of dropped sessions due to technical issues.
- Number and/or percentage of cancelled sessions due to technical issues.
- Number and/or percentage of instances of poor picture quality, pixilation, audio/video lag, etc.

Risk Management

Risk Management can be defined as a process centered on identification, analysis, treatment and evaluation of real and potential hazards. In the area of Clinic Based Telehealth, potential risks for the program are few, although there are areas of concern that may lead to potential patient safety risks.

These include: 1) The safe and effective management of any medical or mental health emergency that may occur during a Clinic Based Telehealth encounter; 2) Clinic Based Telehealth equipment failure that may prevent the patient and provider encounter from occurring; and, 3) Safe and effective care of the patient who may be severely immunocompromised.

In a medical or mental health emergency, the Clinic Based Telehealth provider who is located at a distance from the patient site is unable to provide direct assistance to the patient and must rely on others at the originating (patient) site to respond safely and effectively. When equipment fails, a backup or contingency plan must be in place to support safe and effective patient care. It is essential effective risk management policies and procedures are developed and practiced around contingency planning and emergency management of any Clinic Based Telehealth patients. Communications, roles and responsibilities of all staff must be well-defined and clear. The following provides some specifics regarding safe and effective emergency management and contingency planning and procedures**. In the event an acute event happens to a patient at the site receiving TelePrimary Care Services, emergency procedures must be in place prior to the event. The procedures are addressed in the** Telehealth Service Agreement (TSA). Examples of key procedures that should be in the TSA include:

- Clinicians should be well informed of patient site medical and mental health emergency procedures.
- Practice drills should be implemented regularly to determine/mitigate any risk.
- In the case of a medical or mental health emergency, it is recommended the Teleprovider, who is at the remote (provider) site, and cannot provide in-person assistance/care, immediately contact the patient (originating) site staff, who will initiate emergency procedures per local emergency policy.
- Mental health emergencies may require additional emergency response from the community and may involve additional steps depending on the situation. These steps should be clearly documented..
- Teleprovider remains connected to patient site during any medical or mental health emergency.
- Telepresenter initiates emergency procedures and remains with the patient during the emergency, depending on environmental safety.
- Phone must be available in exam room for provider to support emergency issues.
- Alternative forms of communication must be available for patient and provider sites to connect immediately. Some of these alert mechanisms include cell phones, pagers, panic buttons and CPRS alerts.
    - A contingency plan should be in place to ensure patient care is not jeopardized, particularly in the event of equipment failure. It is important the Facility Telehealth Coordinator (FTC) at the originating site synchronize with the specialty provider to offer appropriate intervention for the patient.
    - .
    - Have back up equipment on hand, especially those items used often and which are mission critical.

- Determine if parts of the Telehealth visit can be done in alternate ways, such as by telephone, while problems are being resolved.

Infection Control and Reusable Medical Equipment (RME)

The primary goal of any infection control program is to protect patients, health care workers and their families from communicable diseases. Standard Precautions means all patients are treated as if they have a transmissible blood borne pathogen. Infection control procedures must be properly performed. To ensure appropriate infection control guidelines are observed, refer to the local Infection Control Department and the Center for Disease Control and Prevention (CDC) web site.

Reusable Medical Equipment (RME) used in a Telehealth encounter must be handled and reprocessed following manufacturer's guidelines. The patient site should follow these guidelines specific to handling and reprocessing contaminated instruments, clinical cart and peripheral equipment, as well as following the recommendations of site-specific Sterile Processing Department (SPD), Infection Control Department, and VHA Guidelines for categorizing and processing critical, semi-critical, and non-critical RME. The patient site may also obtain additional guidance from the CDC web site. **The condition of the Telehealth patient may vary from relatively stable to extremely ill.** The treating clinician at the patient site should alert staff involved in the Telehealth visit of **any specific risks.** For specific guidelines and/or recommendations in the safe and effective management of the severely immunosuppressed patient refer to the Center for Disease Control and Prevention (CDC) (http://www/cdc/gov/HAI/prevent/prevent_pubs.html) web site and the local VAMC Infection Control Department.

- Standard precautions are the minimum infection prevention practices applicable to all patient care, regardless of suspected or confirmed infection status of the patient, in any setting where health care is delivered.
- Reverse isolation procedures should be considered to protect patients from infectious organisms that might be carried by staff, visitors, or other patients.
- Terminal cleaning of the patient site examination room should be considered if a discharged patient is considered actively infectious. Refer to Infection Control Department for local standards.

Links to Related Resources

Conditions of Participation
Self-assessment tools developed by the Office of Telehealth Quality Management team to assist VISNs with the Conditions of Participation program designation. The tools contain a listing of all the applicable standards used to evaluate and ensure safe and effective Veteran care.

National 911 Link http://psap.networkresourcecenter.org/

Chapter 18: Additional Resources

Additional resources are available from publications, resources and a Glossary of Terms. This will assist the reader to further their knowledge, additional resources for planning and implementation. The resources are also useful for managing a Clinic Based Telehealth program.

Links to Related Resources

Publications/ Resources/ Links
A comprehensive list of references, resources and links for the reader to access to understand the background, theories and documented experiences used to create this document

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Glossary and List of Terms

Links to Related Resources

CBT Manual Resources, References and Glossary
A list of terms found in this document to assist in understanding the intent of the abbreviations, terminology and acronyms.