TELEHEALTH 2015: EVOLVING CHRONIC DISEASE MANAGEMENT

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Telehealth Program Manager
VISN 10 Rural Health Consultant
What would you do?

- **Patient: Mr. A**
  - Place of Residence: Canton
  - Diagnoses: Diabetes, Obesity, Chronic Back Pain
  - Background: Patient unwilling/unable to travel to Cleveland due to Chronic Pain and Weight issues.

- **Patient: Mr. B**
  - Place of Residence: Lorain
  - Diagnoses: Quadriplegia, Multiple Sclerosis
  - Background: Patient unable to travel to Cleveland due to medical conditions.
Accountable Care

- Accountable Care Organizations (ACOs) are groups of doctors, hospitals, and other health care providers that work together collaboratively and accept collective accountability for the cost and quality of care delivered to a population of patients.

http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/ACO/index.html?redirect=/ACO

Transitioning to Population Health

- What is population health?
  - Accountability for health outcomes in populations defined by health care delivery systems such as health plans or Accountable Care Organizations (Stoto 2013)

- Requires fundamental shifts
  - Fee for service to outcomes based model
  - Episodic to longitudinal care across settings
  - Empowering patients to be in charge of their health
  - Reorganizing the system of care
The Louis Stokes Cleveland VA Medical Center
Cleveland VAMC FY15

- 3rd most complex VHA facility in the country
- Total Unique Patients: 109,962
  - 34% are classified as Rural Patients
- Admissions: 10,416; ADC: 508
- Outpatient Encounters: 1,965,061
- Outpatient Visits: 1,480,712
The Louis Stokes Cleveland VAMC provides care for 110,000 Veterans residing in 24 counties.
Affordable Care Act

- Projected shortage of at least 39,000 family practitioners by 2020 even before announcement of ACA
  - 30 million more expected healthcare users

- Change from fee for service to outcome based model

- Penalties will be assessed for frequent hospitalizations and unnecessary follow up visits

- Prevention will be the new focus
  - Physician must be engaged for true prevention
Population Management

- **Chronic Care Needs**
  - Patients in need of daily remote monitoring for various chronic disease issues
  - Require frequent visits to Primary Care for medication adjustment and various vital sign monitoring

- **Specialty Care Needs**
  - Patients in need of specialty care that is not available on-site at their local facility

- **Rural Primary Care & Specialty Care Needs**
  - Patients living in remote areas where access to both Primary Care and Specialty Care services are not regularly accessible
What is the VA’s Answer?

Telehealth and Telemedicine
What are Telehealth and Telemedicine?

- **Telehealth** – primarily patient health education with remote monitoring and coordination of care
  - In general, no direct interaction between provider and patient
  - E.g. home glucose monitoring with medication titration

- **Telemedicine** – direct provision of medical care
  - Two-way video, image review
  - E.g. acute care visit, Tele-Dermatology

**Often terms are used interchangeably**
Regulation of Telehealth & Telemedicine

OTS (Office of Telehealth Services) – oversees the programs, ensures that standards are met, conduct program reviews.

Conditions of Participation – Clinical, business and technical standards for all programs.

Comprehensive Staff Orientation – Core didactic modules and preceptor guided training.

Competencies – Care Coordinators must maintain yearly competencies, annual CE for Telehealth.
VHA Telehealth Principles

- Veteran-centric care delivery
- Routine measurement of outcomes
- Ensuring Veteran’s have meaningful choices
- Encouraging the availability of services in community settings
- Making the Veteran’s residence or local clinic the preferred site of care
- Supporting the home caregiver
- Enabling the timely provision of services
- Using evidence based care guidelines to provide services
- “Providing the Right Care, In the Right Place, At the Right Time”
1. Clinical Video Telehealth
2. Store & Forward Telehealth
3. Home Telehealth
Clinical Video Telehealth
Clinical Video Telehealth

- **Facility to Facility or Facility to Home**
- Uses advanced Telehealth technologies to make diagnoses, manage/provide care, and perform check-ups
- Real-time videoconferencing technologies with supportive peripheral devices
- Population Management: Rural Primary Care & Specialty Care Needs
Video Connection Methods

- All transmissions are fully encrypted
  - Medical Center to Outpatient Clinic
  - Outpatient Clinic to Outpatient Clinic
  - Medical Center/Outpatient Clinic to non-VA facility

- IP Video-to-Home
  - Jabber (Cisco Product)
  - iPad / iPhone
  - Android Tablet Technology
Clinic & Home Based Video Programs

- Tele-Nutrition
- Tele-Traumatic Brain Injury
- Tele-Audiology
- Tele-Speech Pathology
- Tele-Physical Therapy
- Tele-Occupational Therapy
- Tele-Blind Rehab
- Tele-Spinal Cord Injury
- Tele-Amputation
- Tele-Urology
- Tele-Diabetes
- Tele-Gastroenterology
- Tele-Pulmonary
- Tele-Nephrology
- Tele-Neurology
- Tele-Primary Care
- Tele-Genomic Medicine
- Tele-MOVE!
- Tele-Surgery
- Tele-Prosthetics
- Tele-Pharmacy
- Tele-Pain Medicine
- Tele-Mental Health
- Tele-Substance Abuse
- Tele-HUD/VASH
- Tele-PTSD
- Tele-PRRC
- Tele-Justice Outreach
- Tele-Physical Medicine
- Tele-Cardiology
- Tele-Orthotics
- Tele-Healthy Cooking
What to Expect During a Video Telehealth Visit?
Video
Cleveland CVT Encounter Growth

Encounters

Fiscal Year


0 2 96 463 908 825 816 973 2,012 4,582 5,889 8,090 10,000
Store & Forward Telehealth
Facility to Facility

Uses advanced Telehealth technologies to make diagnoses, manage/provide care, and determine the necessity of follow-ups

Imagers acquire and store clinical information (e.g. data, image, sound, video) that is then forwarded to (or retrieved by) another site for clinical evaluation.

Programs:
- Tele-Retinal Imaging
- Tele-Dermatology
- Tele-Wound Care
- Tele-Spirometry

Population Management: Chronic Care & Specialty Care Needs
Cleveland SFT Image Growth

Encounters vs. Fiscal Year

- 2005: 27
- 2006: 446
- 2007: 775
- 2008: 2,592
- 2009: 2,849
- 2010: 2,900
- 2011: 2,994
- 2012: 3,797
- 2013: 7,898
- 2014: 8,090
- 2015 (Proj.): 8,500

Fiscal Year: 2005 to 2015 (Proj.)
Benefits of CVT & SFT

- Travel Reduction
  - Cost Savings
  - Time Savings
  - Compliance
- Increased Patient Satisfaction
- Improved No-Show Rate
- Increased Access & Awareness
- Integrates PACT Teams into Specialty Care Process
How to Refer for CVT & SFT

- **ASK!!!**

- Clinics will be set up to capture both CVT and face-to-face workload

- Equipment will be provided by the Telehealth program
  - Desktop and wall mounted equipment is available

- Eligibility criteria is determined by the service and providers

- Co-Payments determined by clinic’s primary stop code
Home Telehealth
Home Telehealth

- **Facility to Patient’s Home**
- **Telemessaging / Telemonitoring**

Patients are monitored at home using home Telehealth technologies.

Goal: Reduce ER visits, hospital admissions, bed days of care.

Patients learn self-management skills that allow them to take control of their diagnosis and monitor their condition from home.

- Cost Savings: VA Average of $2,000 per year
- Population Management: Chronic Care Needs
Telemessaging

- **Diagnoses**
  - Diabetes
  - CAD
  - CHF
  - COPD
  - Hypertension
  - Spine Cord Injury
  - Depression
  - Schizophrenia
  - PTSD
  - Bipolar
  - Dementia
  - Low ADL
  - MOVE!
  - Smoking Cessation
  - Substance Abuse

- **Daily monitoring**
- **Easy to use and transport**
- **Interactive Voice Response**
## Comparing Technologies:

### Wired Devices
- Landline or high speed internet (wired, wireless, cellular) required
- Cabled peripherals provide accurate data
- Real time data transmission not available with all vendors
- Dialogs often more inclusive
- Cost: approx $300

### Interactive Voice Response
- No Landline or Internet Required
- Cell phone
- Same Day Data Transmission
- Inbound/outbound calls
- Lack of cabled peripherals
- Phone plan required
- No reading required
- Cost: no fee service
Telemonitoring

- Use of two way audio/video technology
- Provides remote care delivery
  - Assessment
  - Education
  - Data Collection
  - Multiple Peripherals
  - Digital Photography
- Mimics in-person visit
- Earlier identification of exacerbation by using stethoscope, multiple peripherals, and live assessment
- Regularly used for patients with HF and/or COPD diagnosis
- Cost: $3,800 w/ peripherals
HT and PACT/Medical Home Model

- Work with PACT/Medical Home to help meet patient needs
- Promotes
  - Proactive Management, not Reactive Management
  - Patient Self-Management
  - Patient Education
  - Personalized Health Plans (Goal Based)
  - Improved Access
  - Caregiver Involvement
  - Improved Patient/Provider
- Ultimate outcome is less reliance on the medical center for care delivery
Home Telehealth First Person Account
Video
Cleveland VAMC HT Highlights
Cleveland HT Census Growth

Unique Patients vs. Fiscal Year

- 2004: 2
- 2005: 78
- 2006: 103
- 2007: 213
- 2008: 237
- 2009: 628
- 2010: 673
- 2011: 971
- 2012: 1,000
- 2013: 1,500
- 2014: 1,535
- 2015 (Proj.): 1,700
Technology in Use

- Health Buddy: 364
- IVR: 409
- Commander Flex: 729
- miLife: 33

Total: 1,535

VA’s 2\textsuperscript{nd} Largest Program!!!
ED Visit Reduction

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<td>-22%</td>
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<td>12 mo.</td>
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### Hospital Admissions Reduction

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The graph visually represents the reduction in hospital admissions over 6 and 12 months for Cleveland and the national average.
Bed Days of Care Reduction

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-80%
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<td>CHF BDOC Reduction</td>
<td>-32%</td>
<td>-51%</td>
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<td>COPD BDOC Reduction</td>
<td>-41%</td>
<td>-62%</td>
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<td>HTN: % Increase in # Pts at target BP</td>
<td>3.7%</td>
<td>8.8%</td>
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<tr>
<td>DM: % Increase in # Pts with HgbA1c &lt;9</td>
<td>7.9%</td>
<td>7.2%</td>
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<tr>
<td>MH: Reduce missed appts</td>
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<td>CHF: % reduction in # admissions</td>
<td>-33%</td>
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<td>Tele-MOVE: Average Weight Change</td>
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<td>Tele-MOVE: % of Pts with &gt;4% Weight Loss</td>
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<td>Tele-MOVE: Average BMI Reduction</td>
<td>-1.64</td>
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Who Refers to Home Telehealth?

- Patient Self-Referrals
- Care Coordinator Screenings
- Primary Care Providers
- Specialty Care Providers
- Mental Health Providers
- Home Based Primary Care
- Nursing
- Social Work
- Discharge Planners
- Etc.
By the year 2020, 154 million people will have 1 or more chronic diseases

45% of the population has at least 1 Chronic Disease

Chronic Disease Care costs > 80% of the health care budget

Chronic diseases are strongly linked to modifiable behaviors

Chronic Disease accounts for the majority of provider visits.
Enrollment Criteria

- **CHF**: Class 2-4 functional status
- **COPD**: Home 02
- **DM**: HGB a1c > 8, compliance issues
  - \( \geq \)1 hosp admission or \( \geq \)2 ER visits in last year
  - or \( \geq \)10 active medications
- **HTN**: \( \geq \)2 active meds, target organ damage
- **Tele-Move**: BMI \( \geq \)30, BMI \( \geq \)25 + comorbid condition
- **CKD, Smoking Cessation, CAD, SCI, Mental Health**
Screening

- Must have VA PCP
- Willing to actively participate *regularly*
- Commit to improving health behaviors
- Type of telephone service/internet access
- Able to use equipment OR have CG/HHA assistance
- Adequate language skills, health literacy level
- Ability to reach Vet during day to assess alerts
- Safe home environment for equipment
- Medical vs mental health DMP (dialog) assignment
- Monitoring parameters – what is needed?
Enrollment

- Phone or office appointment (outpatient)
- Initial assessments
- Medication reconciliation
- Equipment Training
- Numeric measurements
- Program and resource information
- Develop SMART goals
- Plan of Care formulated
- Setting Alert Parameters
Nursing Implications:

- Home data – how accurate is it?
- What are the patterns and trends?
- What are the symptoms?
- Self treatment by Vet?
- Further action indicated?
- Implement interventions
- How do I communicate my observations effectively?
- Reassess response
Sample HF Dialog Question

- Are you more short of breath today than usual?
- 1) I have no shortness of breath.
- That’s good! Be aware that more shortness of breath than usual can signal worsening heart failure or other medical problems.
- 2) My breathing is better than normal.
- 3) There’s no change in my breathing.
- 4) My breathing is worse than normal.

- Having more shortness of breath than usual can be a sign of worsening heart failure or other medical problems. Please contact your care coordinator.
**Daily Monitoring and Alert Management**

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<th>SSM</th>
<th>DMPH</th>
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<th>HDRS</th>
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Daily Monitoring and Alert Management

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Unverified Past Transmissions: 0

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Today's Transmissions: 1

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Transmission Detail

- **Date/Time:** 9/10/2015 08:13 (EST)
- **Mood:** N/A
- **Pain:** N/A
- **Alerts:** Questions

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<tr>
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<th>Weight (lbs)</th>
<th>Blood Pressure</th>
<th>Heart Rate</th>
<th>Glucose (mg/dL)</th>
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<td>08:11 51</td>
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</table>

Alert Responses

- Not sure if weight has gone up 3 lbs or more in last week.
- Other Responses:
  - I have no sob today.
  - No, my swelling has not changed today.
  - I have no fatigue today.
  - I have no dizziness today.
### Daily Monitoring and Alert Management

#### 14-Day Device Logs

<table>
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<tr>
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<th>Questions</th>
<th>Weight (lbs)</th>
<th>Blood Pressure</th>
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<th>Glucose</th>
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#### Transmission Detail

**9/11/2015 06:06 (EST)**

**Mood:** N/A  **Pain:** N/A

Alerts: High Wt, Wt gain, Questions

**Weight (lbs)**

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**Blood Pressure**

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**Glucose (mg/dL)**

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**SpO2**

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**Peak Flow**

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**Alert Responses**

- Feeling sad, down or discouraged

**Other Responses**

- Not more SOB today
- No trouble sleeping last night due to feeling short of breath
- Ankles, feet or legs not more swollen today

**Note**

Add Health Check  Copy Note
## Glucometer Download

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**Average All Readings: 124**
Case Study 1: HF

- **Situation:** 3# overnight wt gain, vital signs within range

- **Background:** Recent hospital discharge, newly Dx HF, wt based diuretic dosing protocol started

- **Assessment:** exertional dyspnea, abd bloating, confused about diuretic dosing, check med compliance of all meds.

- **Recommendations/Intervention:** Patient education on protocol, HF symptoms, low Na diet, fluid restriction, early am wgts, consider additional consults. Re-assess daily for response.
Case Study #2  CAD

- **Situation:** BP=78/62
- **Background:** Patient s/p EP procedure, recently had med changes, extensive cardiac hx
- **Assessment:** “I haven’t felt this dizzy since I was syncopal 7 years ago.” “I think the metoprolol 25mg at night is too much.” “I haven’t felt well since the procedure.”
- **Advice:** Call 911, “I can’t afford it.” Assist with ride to VA ED or local ED asap for evaluation.
Case Study #3  DM

- **Situation:** Out of range blood sugars:
  - 11/27/2014  09:15  195
  - 11/26/2014  20:11  245
  - 11/26/2014  17:12  309  *H
  - 11/26/2014  09:08  79

- **Background:** A1C=6.2  (previous month), DM diagnosed 2005
- **Meds:** glargine insulin 50 units at HS, aspart insulin 14 units w sliding scale TID

- **Assessment:** No S+S hypoglycemia, treated low with trail mix and OJ, did not repeat blood sugar before going to bed. Active day, forgot dinnertime aspart. Alarmed by elevated evening blood sugar, took aspart dose late in evening.

- **Recommendations:** No aspart insulin in evening, review 15-15 rule to treat low sugar, recheck sugar after low, consistent meal and med times, aspart vs glargine
Home Telehealth Program Discharge

- Goals met
- Lengthy hospitalization
- Admitted to long term care facility
- Veteran request
- Not reporting regularly, program non-adherence
- Death
VA & Non-VA Reimbursement
VA Reimbursement

- **Home Telehealth**
  - Each patient with at least 3 months of HT monitoring, local VA is reimbursed approx $10,000 - $19,000 annually through the VERA Model

- **Clinical Video Telehealth**
  - Providers get workload credit as though they saw patients as a face-to-face visit
  - Can be used to vest patients into the VERA Model

- **Store & Forward Telehealth**
  - No Reimbursement
  - Increases access, providers get workload credit as though they saw patients as a face-to-face visit
Non-VA Reimbursement

It is really confusing!!!

Four

No Three
Medicaid in Ohio

- Source: American Telemedicine Association

---

### Telemedicine in Ohio

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<td>Informed Consent</td>
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<td>Telepresenter</td>
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### Innovative Payment or Service Delivery Models:

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<th>State-wide Network</th>
<th>Medicaid Managed Care</th>
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- No telemedicine parity law. SB 32 introduced in 2015 to establish telehealth parity under private insurance and Medicaid.
- New Medicaid regulations expand telemedicine coverage to include consultations by physicians and a limited selection of practitioners. The new rules also require that the distant and originating site be at least 5 miles away.
- Coverage also includes school-based speech therapy, behavioral health counseling and therapy, mental health assessment, pharmacological management, and community psychiatric supportive treatment service via interactive audio-video only.
- Medicaid allows beneficiaries to choose the patient location when telemedicine is used for some mental/behavioral health services.
- Requires written informed consent for mental and behavioral health services.

Innovation:
- CMS approved health home proposal allows service delivery via in-person, by telephone, or by video conferencing.
Remote face-to-face (Clinical Video Telehealth)

- Services that are eligible for reimbursement include consultation, office visits, individual psychotherapy and pharmacologic management delivered via a telecommunications system. The use of a telecommunications system may substitute for a face-to-face, "hands on" encounter for consultation, office visits, individual psychotherapy and pharmacologic management.

- Procedure Code Restrictions (Facility Fee Q3014 w/ GT modifier)

- Provider Type Restrictions

- Geographic and Facility Type Restrictions
Remote non face-to-face (Store & Forward)

- A service may be considered to be a physician’s service where the physician either examines the patient in person or is able to visualize some aspect of the patient’s condition without the interposition of a third person’s judgment. Direct visualization would be possible by means of x-rays, electrocardiogram and electroencephalogram tapes, tissue samples, etc.

- Not considered Telehealth or Telemedicine. Considered the same as on-site delivery and coded as such.

- No Geographic or Facility type restrictions.

- Special Pacemaker and Cardiac CPT Codes
Home Telehealth

- CPT codes: 99490 & 99091 bundle for ~$100 per month
- Nothing to preclude an HHA from adopting HT if they believe it promotes efficiencies.
- If an HHA has Telehealth services available to its clients, a doctor may take their availability into account when he or she prepares a plan of treatment (i.e., may write requirements for Telehealth services into the POT). Medicare eligibility and payment would be determined based on the patient’s characteristics and the need for and receipt of the Medicare covered services ordered by the physician. If a physician intends that Telehealth services be furnished while a patient is under a home health plan of care, the services should be recorded in the plan of care along with the Medicare covered home health services to be furnished.
Private Payer Telehealth Billing & Reimbursement

- No required coverage for Telehealth within Ohio
  - 21 states have enacted laws mandating private health insurance plans to cover various Telehealth visits
  - Rule 5160-1-18, Telemedicine, would allow for coverage for evaluation and management and psychiatric services coverage but only for provider location.

- No widely-accepted standard
  - Acceptance depends on insurance company’s perceived value of Telehealth
  - As Medicare and Medicaid expand coverage, private payers will soon follow
  - Provider groups are the future and, in some cases, the present
Summary of Non-VA Reimbursement

- **Medicaid:**
  - State Variance (45 states have varying coverage requirements)
  - Geography, Provider, & Procedure Limitations

- **Medicare**
  - Geography, Provider, & Procedure Limitations
    - Patient location must be location in a Health Professional Shortage Area (HSPA) or in a count outside of a Metropolitan Statistical Area (MSA)
    - Home Telehealth: No reimbursement, although use is encouraged
    - Video Telehealth: Reimbursement equal to face-to-face. Patient site eligible for facility fee reimbursement.
    - Store & Forward: Considered non-Telehealth and reimbursed equal to face-to-face service

- **Private Insurers**
  - State Variance (20 states have varying coverage requirement)
  - Insurer Variance
Patient: Mr. A

- Patient has been followed by Pain Medicine regularly since October 2013 for chronic lower back issues set on by his obesity. Patient was consulted to HT Tele-MOVE by Tele-Pain provider in January 2014 for weight loss management. Patient was instructed by non-VA provider to lose 10 lbs and consider bariatric weight loss surgery. Veteran was discharged in November 2014 and was scheduled for bariatric surgery in late November 2014. Patient has also regularly followed the Tele-Retinal “Every Other Year” plan.
- HT Encounters: 35
- CVT Visits: 7
- TRI: 4

Patient: Mr. B

- Patient was diagnosed with MS and referred to Cleveland SCI for initial annual exam on 12/30/13. Patient was enrolled in SCI HT Program on 1/17/14 for MS Telemessaging. Patient continues Telemessaging enrollment and video visits were added to his care plan on 3/27/14. Patient continues to be seen via video on a monthly basis due to travel difficulties and regularly required follow up visits.
- HT Encounters: 59
- CVT Visits from Home: 15
Thank You!

Questions?
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