72 TELEHEALTH IN PAIN MEDICINE: LESSONS LEARNED DURING THE COVID-19 PANDEMIC

Sharon M Weinstein MD, MT, FAAHPM
Neurology; Pain Medicine; Hospice and Palliative Medicine; Professor of Anesthesiology and Adjunct Professor of Pediatrics, School of Medicine, University of Utah, Salt Lake City, UT, USA. VA Salt Lake City Health Care System, Salt Lake City, UT, USA

P U R P O S E Three selected cases of Pain Medicine clinical encounters are presented to illustrate the lessons learned during the conversion of face to face care to telehealth care (via video and telephone) mandated during the COVID-19 pandemic emergency situation. These lessons are described in three general categories. Those are: 1) care processes, 2) clinical impact and 3) administrative to include costs. Lessons learned are important for improving clinical outcomes, conveying new information to clinicians planning to implement telehealth, conveying new information to clinicians utilizing telehealth, conveying new information to administrators promoting the use of telehealth and payers considering reimbursement for telehealth services. Care processes involve patient, staff, clinician and administrative perspectives. **M E T H O D S** Experience implementing telehealth services in three different health care systems in the state of Utah are the source of material described. Since the onset of the COVID-19 pandemic in the United States, different health systems have had different approaches to the implementation and acceleration of telehealth services. This senior Pain Medicine clinician has been practicing in these health systems for over twenty years and has made observations of the different approaches to implementing telehealth particularly since the COVID-19 pandemic hit the state of Utah. Three cases are chosen to illustrate the lessons learned from this experience. She has engaged with patients, other clinicians, and other administrators to share their observations of the impact of telehealth services on pain medicine care. Observations were recorded March 2020 – August 2020. **R E S U L T S** There are differences in the outcomes of telehealth pain medicine services that depend on multiple factors. These factors can be divided into patient related, clinician related, technical and systems related factors. Some of the outcomes are positive and some may be negative. Some of the positive outcomes of telehealth pain medicine were surprising, such as the clinicians direct observations of patient's home environments along with their interactions with pets and family members. Those observations give added understanding of pain patients' functional status. The illustrative case reports are chosen to highlight both the positive and negative aspects of delivering telehealth pain medicine services. Results are summarized in the TABLE.

TABLE: CASES and TELEHEALTH LESSONS LEARNED

CASE	SETTING	Clinical Summary	Lessons - Care Processes	Lessons - Clinical impact	Lessons – Administrative
1	University of Utah Huntsman Cancer Center; Supportive Care and Survivorship - Pain Medicine and Palliative Care Clinic U Utah Telehealth, Zoom, Doximity, Telephone	55 year old male Head & Neck cancer survivor s/p radical neck dissection with post-surgical neuropathic deafferentation pain and myofascial pain syndrome; requires regular phlebotomy for hemochromatosis Receives regular controlled substances Retired, wife working, resides in WY	USED: U Utah Telehealth; Zoom Able to avoid interstate long distance travel to cancer center clinic; able to coordinate other local cares more efficiently Complex care coordinated Reduced travel burden/costs	Improvement in symptom control – pain and non-pain related fatigue with better care coordination; less symptom aggravation from travel; greater ability to engage with care of his young nephew that gives meaning and purpose to his life; clinician observes patient in home environment functioning in family/social role – gardening with young nephew	The coordinated training sent out through the EHR and through the U wide email system, and communications from clinic managers/staff to identify clinician's needs resulted in seamless implementation. Clinic flow improved, "no show" almost zero. Patient costs reduced significantly. Clinician conducts clinic with same office support staff, so little cost savings achieved.
2	Primary Children's Medical Center – Pain Medicine and Palliative Care Subspecialty Clinic in Neurosurgery; Intermountain Health Care Zoom, Doximity, Telephone	11 year old male with neuropathic lower extremity pain related to arachnoiditis, headache associated with shunted hydrocephalus, myofascial pain, spastic quadriparesis associated with cerebral palsy, developmental delay Mother is primary caregiver	USED: Telephone (mother prefers) Patient transfers are especially difficult, particularly in and out of motor vehicle, patient has sustained injury during transfers; patient often resists being brought to medical appointments; telehealth appointment scheduled on urgent basis for pain exacerbation; specialist can offer appointments at times outside of limited subspecialty clinic schedule Care facilitated Reduced burden of care	Telehealth offers increased frequency and timeliness of encounters yielding improved symptom control; increased caregiver satisfaction with care process reduces caregiver strain improving dyad relationship and both patient/caregiver quality of life	Clinic staff was proactive to identify options for care – face to face, video or telephone; subspecialty clinician preference and capabilities considered along with patient/family needs; office staff efficient with scheduling telehealth appointments and facilitating communications as necessary Telehealth visits conducted at alternate locations, saving clinic operating costs Patient costs reduced
3	VA Salt Lake City Health Care System – Integrative Pain Medicine Clinic in Holistic Medicine Service VVC (VA Video Connect), Zoom, Doximity, Facetime, Telephone	85 year old male with lower back pain related to degenerative spine disease, chronic obstructive pulmonary disease, multiple medical comorbidities, hard of hearing; lives alone Receives regular controlled substances	USED: Telephone Veteran unable to use VVC, requested to have neighbor assist him with set up, several attempts with clinician were unsuccessful, veteran prefers telephone to continue attempting VVC Poor communication via telephone due to hearing impairment Patient related barriers to telehealth options	Unable to achieve telehealth sufficiently; have continued with Home Care RN to assess symptoms and provide oversight of medication management for safety; telephone visits are unsatisfactory to patient and clinician; heightens awareness of veteran hearing impairment and need for additional attention Clinician burdened with extra effort attempting to achieve telehealth care, draining resource from actual care Reduced veteran satisfaction given face to face is veteran preference	VA Goal as stated in one training: Give veterans an "experience that doesn't suck" (!) VA provided mass trainings on VVC, while guidance related to other commercially available products was frequently changing. During the pandemic, VA went from 2000-40,000 VVC visits daily. Staff expected to convert to mostly VVC cares; clinicians requested additional training, equipment, and staff support to meet expectations. Subspecialty clinics as yet do not have staff allocations dedicated to support telehealth expansion, adding to clinicians' burdens for care management. There is a need for additional clinic staff dedicated to support telehealth expansion. Expect significant cost shifts, need analysis.

D I S C U S S I O N One Pain Medicine clinician's experience with rapid acceleration of telehealth implementation in three different health systems highlights the differences in successful implementation that depend on patient, clinician, technical and systems related factors. With full system and technical support, a willing and dedicated clinician with adequate technical skills may still face insurmountable patient related barriers to telehealth utilization. When able to incorporate some telehealth encounters into routine care, the Pain Medicine clinician is likely to obtain very useful and sometimes unique information about patients' social determinants of health and functional status. Telehealth utilization when fully operational may contribute to increased patient and clinician satisfaction with care delivery as it can reduce some burdens of care. However, asynchronous care modalities require more effort on the part of clinicians to document care and maintain communication across different electronic spaces including the telephone. Furthermore, the elements of Pain Medicine care that cannot be accomplished virtually will require ongoing face to face encounters, such as manipulative treatment and interventional procedures. Patients on medication management with controlled substances will continue to require regular visits to the laboratory for testing for safety monitoring. Finally, it is recognized by patients and clinicians alike that there is no effective substitute for a face to face encounter to maintain the therapeutic relationship. The optimal balance of virtual and face to face encounters in Pain Medicine is a subject for ongoing exploration. There are opportunities for expanding group sessions for pain education as well as some cares via telehealth. As patients and clinicians become more familiar with telehealth technology for care encounters there is likely to be more utilization of other elements of telehealth, such as home monitoring equipment, specific APPs, and other resources adjunctive to holistic Pain Medicine. Pain Medicine clinicians should keep in mind that there is the potential for some patients to be less able to communicate freely in their home environments, particularly those with trauma history and those currently in an unsafe or insecure situation. Lastly, the author notes concern with the potential for undervaluation of services delivered via telehealth methods.

C O N C L U S I O N S

TELEHEALTH WAS EXPANDING BEFORE THE ONSET OF THE COVID-19 PANDEMIC.THE PANDEMIC HAS DRIVEN A MARKED ACCELERATION OF TELEHEALTH, INCREASING PATIENTS' AND PROFESSIONALS' UTILIZATION AS WELL AS SPURRING COMPETITION IN THE BUSINESS OF AMERICAN HEALTH CARE. WE MAY CONSIDER THIS A PARADIGM SHIFT FOR GENERAL HEALTH CARE DELIVERY THAT HAS SPECIFIC IMPLICATIONS FOR PAIN MEDICINE.

Given the uncertainty of the COVID-19 pandemic in terms of changes to health care in the United States and the duration of the pandemic, we can expect to be providing telehealth Pain Medicine in our care of patients well into the future. The lessons illustrated in these cases categorized by care processes, clinical impact and administrative issues will be very important to further elucidate going forward. Additional lessons will likely be learned as we continue to provide telehealth Pain Medicine services with the dual goals of improving accessibility and quality of care.