

American College of  
Emergency Physicians  
Section on Telehealth

# Winter Newsletter 2023

---

## CONTENTS

HEALTH POLICY CORNER.....	2
Telehealth Regulatory Updates.....	2
Federal Telehealth Policy Updates: Forward Progress or Holding Pattern? .....	2
SPOTLIGHT Section.....	7
Spotlight on Hospital at Home.....	7
VOICES FROM THE FIELD.....	9
Empowering Healthcare Globally: 'MEDJACK' Unveils Tele-Emergency Medicine and Other Innovations Through Dynamic Storytelling .....	9
Emory Rural Expanded Access to OUD Care & Linkage Using Toxicologists for Telehealth Initiated TreatMEnt (REAL TTIME) .....	11
AWESOME ABSTRACTS .....	13
Telemedical support for prehospital emergency medical service in severe emergencies: an open-label randomised non-inferiority clinical trial .....	13
Telemedicine Versus In-Person Primary Care: Treatment and Follow-up Visits .....	14
Telemedicine Buprenorphine Initiation and Retention in Opioid Use Disorder Treatment for Medicaid Enrollees .....	15
Telehealth Utilization in Trauma Care: The Effects on Emergency Department Length of Stay and Associated Outcomes .....	16

## HEALTH POLICY CORNER

### Telehealth Regulatory Updates

By Ryan McBride | Congressional Affairs Director at ACEP

#### Federal Telehealth Policy Updates: Forward Progress or Holding Pattern?

With the expiration of the COVID-19 public health emergency on May 11, 2023, some of the temporary policy flexibilities provided during the response to the pandemic were phased out accordingly. Fortunately, thanks to Congress' work in the Consolidated Appropriations Act, 2023 (CAA) last year, most of the Medicare telehealth-related flexibilities were officially extended through December 31, 2024. This included removing geographic requirements and expanding originating sites for telehealth services, expanding practitioners eligible to furnish telehealth services, expanding telehealth services for Federally Qualified Health Centers (FQHCs) and Rural Health Clinics, delaying the in-person requirements under Medicare for mental health services furnished through telehealth and telecommunications technology, allowing for the furnishing of audio-only telehealth services, use of telehealth to conduct the face-to-face encounter prior to recertification of eligibility for hospice care during the emergency period, as well as a study on telehealth and Medicare program integrity.

There were several issues that were *not* addressed in the CAA: licensure waivers, face-to-face evaluation requirements prior to home dialysis, the Hospitals Without Walls initiative, enforcement discretion for technologies such as Facetime, Skype, etc., prescribing of controlled substances, reimbursement of Medicare telehealth services (Categories 1,2, and 3), direct supervision and virtual presence, and telehealth as an excepted benefit under ERISA.

Part of the reasoning behind a two-year extension was to give policymakers time to examine a larger dataset on telehealth utilization, effectiveness, and *especially* costs. Additionally, this timeframe gives Congress something of a reprieve – there are few things that Congress loves more than a deadline, and given some of this year's unprecedented chaos (to put it mildly!) on the House side, there simply has been little urgency to take up much substantive policymaking on the topic. Various telehealth bills have been introduced and some even considered by relevant committees, but most expectations are that any major movement is going to be a late-2024 proposition.

Most of the relevant action has occurred within the regulatory space (and, as you well know, there is also action ongoing at the state level as well as with private payers). In the recent calendar year (CY) 2024 Physician Fee Schedule (PFS) final rule issued by the Centers for Medicare & Medicaid Services (CMS), the agency codified several of the policies in the CAA, including:

- Waivers to the geographic and originating site restrictions;
- Expansions to the list of eligible practitioners;

- Eligibilities for federally qualified health centers and rural health clinics;
- Allowing telehealth to be provided through audio-only telecommunications;
- Allowing telehealth to be used for a required face-to-face encounter prior to the recertification of patient’s eligibility for hospice care; and
- Delaying the in-person visit requirement before a patient receives tele-mental health services.

Again, CMS reiterates in the final rule that these flexibilities expire on December 31, 2024.

In the rule, CMS is also implementing other regulatory changes:

- CMS did not permanently add any new codes to the Medicare Telehealth list – instead, it revised the process for adding new codes and created a “provisional” and “permanent” list. All codes that were temporarily added to the list during COVID-19 pandemic placed on the “provisional” list. There is no specified timeframe to remove “provisional” codes from the list.
  - The emergency medicine codes that are now on the “provisional” list include:
    - ED E/M services: CPT 99281-99285
    - Critical care: CPT 99291-99292
    - Initial hospital/observation: CPT 99221-99223
    - Same day hospital/observation: CPT 99234-99236
    - Hospital/observation discharge day: CPT 99238-99239

(Note that subsequent hospital/observation codes, CPT 99231-99233, are permanently on the list.)

CMS finalized the following steps for adding, removing, or changing the status of services on a Medicare Telehealth Services List on a permanent basis:

1. Determine whether the service is separately payable under the PFS.
2. Determine whether the service is subject to the provisions of section 1834(m) of the Social Security Act (i.e., at least some elements of the service, when delivered via telehealth, are a substitute for an in-person, face-to-face encounter, and all of those face-to-face elements of the service are furnished using an interactive telecommunications system).
3. Review the elements of the service as described by the HCPCS code and determine whether each of them is capable of being furnished using an interactive telecommunications system.
4. Consider whether the service elements of the requested service map to the service elements of a service on the list that has a permanent status described in previous final rulemaking.
5. Consider whether there is evidence of clinical benefit analogous to the clinical benefit of the in-person service when the patient, who is located at a telehealth originating site, receives a service furnished by a physician or practitioner located at a distant site using an interactive telecommunications system.

Under this new approach, provisional status will be assigned to codes that satisfy the threshold steps (steps 1,2, and 3 above), but will not assign provisional status if it is unlikely that the code would ever achieve permanent status. CMS will revisit provisional status through the regular annual submissions and rulemaking processes when a submission provides new evidence, when the agency’s claims monitoring shows anomalous activity, or when indicated by patient safety considerations. If a stakeholder wants CMS to add a code permanently to the list, the stakeholder must present evidence supporting all five of the threshold steps by February 10 of the year *before* the policy would be effective (e.g., February 10, 2024 for the CY 2025).

Overall, we view this as a positive change, as there had been issues particularly with the criteria for Category 2. And also on the bright side, CMS anticipates that anything put on the list as “provisional” will ultimately become permanent.

CMS will pay the lower, facility-rate for all telehealth services except when patients receive service from their home. In this case, CMS will continue paying at the higher non-facility rate. Therefore, payment levels depend on place of service (POS):

- POS 02, redefined as Telehealth Provided Other than in Patient’s Home (Descriptor: The location where health services and health related services are provided or received, through telecommunication technology. Patient is not located in their home when receiving health services or health related services through telecommunication technology.)
- POS 10, Telehealth Provided in Patient’s Home (Descriptor: The location where health services and health-related services are provided or received through telecommunication technology. Patient is located in their home (which is a location other than a hospital or other facility where the patient receives care in a private residence) when receiving health services or health-related services through telecommunication technology.)

CMS also finalized the continuation of other flexibilities through December 31, 2024, related to frequency limitations, direct supervision requirements, and supervision of residents in teaching settings.

- Removal of frequency limitations: CMS will continue its suspension of frequency limitations for certain subsequent inpatient visits, subsequent nursing facility visits and critical care consultations furnished via Medicare telehealth.
- Direct supervision: CMS will maintain its current definition of direct supervision to permit the presence and “immediate availability” of the supervising practitioner through real-time audio and visual interactive telecommunications.

- Supervision of residents in teaching settings: CMS will continue to allow the teaching physician to have a virtual presence in all teaching settings only in clinical instances when the service is furnished virtually (for example, a three-way telehealth visit, with all parties in separate locations). This will permit teaching physicians to have a virtual presence during the key portion of the Medicare telehealth service for which payment is sought through audio/video real-time communications technology for all residency training locations.

In October 2023, ACEP joined more than 110 other organizations in a [letter](#) led by the Alliance for Connected Care asking CMS to protect the privacy and safety of physicians and health care providers and ensure that telehealth practitioners working from a home-based location do not need to report their private residence to the federal government for purposes of enrollment or billing.

ACEP also joined another Alliance for Connected Care letter with more than 170 organizations supporting the “Telehealth Expansion Act” (H.R. 1843/S. 1001), bipartisan and bicameral legislation to make permanent another PHE flexibility that allowed employers to provide telehealth services on a pre-deductible basis to individuals with high-deductible health plans coupled with a health savings account (HSA). This bill was marked up in the House Committee on Ways and Means earlier this year, and now awaits further consideration by the full House of Representatives. ACEP also helped develop and continues to advocate for the CONNECT for Health Act, comprehensive bipartisan and bicameral legislation that would expand Medicare telehealth coverage, make permanent the COVID-19 flexibilities, and increase overall access to telehealth services.

With respect to prescribing of controlled substances, there had been broad waiver flexibility, even for initial encounters, during the PHE. Back in February, the Drug Enforcement Administration (DEA) issued two regulations, one for controlled substances broadly, and one specific to buprenorphine. Both of those rules were significantly more restrictive than the flexibilities provided under the PHE. ACEP [responded](#) to the rule, focusing our comments on the buprenorphine piece. Our comments, as was the case with other stakeholders, largely took issue with the restrictive proposals as a major step backwards. But thanks to ACEP advocacy and others, in October 2023, the DEA combined both regulations into a temporary final rule and actually listened to stakeholder feedback and reversed course by extending the existing telehealth flexibilities through December 31, 2024.

To wrap this all up, as you can see there’s been a lot of activity this year, but much of it has been to temporarily extend some policies and maintain the recent status quo. These are certainly victories in the short term, but I also fully recognize that many of the programs and systems that you have all worked so hard to establish need longer-term stability and certainty, and require significant investments that are difficult to justify without a guarantee that the regulatory environment will continue to support telehealth expansion. That’s one of the key messages the ACEP federal advocacy team continues to reiterate to legislators and regulators alike, and your experiences and expertise are vital in helping us deliver that message.

My sense, for whatever that's worth, is that we're likely to see another temporary extension of telehealth flexibilities for the foreseeable future, e.g., one- or two-year extensions that require Congress to come back to the issue over and over. Why is that? The short answer is "government math" – especially in this current legislative environment where government spending is front and center, a temporary extension costs a whole heck of a lot less than a permanent policy change (I've heard estimates that could be north of \$100 billion), so it's just not as heavy of a procedural lift to do short-term fixes. Further, legislators are still waiting to get that data I noted earlier and better understand just how telehealth is being used. We'll know more the further along we get into 2024, so stay tuned for more updates.

## SPOTLIGHT Section

*The spotlight section serves to take a closer look at a particular area in the practice and implementation of tele-emergency care. Feel free to email the newsletter editor at [imassag@emory.edu](mailto:imassag@emory.edu) if you have suggestions for the spotlight section.*

### Spotlight on Hospital at Home

**By Michael Nottidge, MD MPH MBA | National Medical Director at Contessa Health**

Remember the last time you placed a bed request to your admitting hospitalist or bed czar for a medical floor admission? We do at least one of these, every single day. For a growing number of emergency physicians across the country, the bed assigned is in the patient's own bedroom, at their own address. The call back you receive might just be coming from a Home Hospitalist.

Hospital at home models, are widely accepted and advanced in many countries over the last few decades and have been practiced in the United States since the early 2000s. However, large scale models have not taken hold until the last 7 years. In that time, there has been [a surge in interest and growth of hospital at home programs](#) across the U.S. This is due to advances in electronic medical records and payer innovations, as well as adoption of telemedicine amongst patient populations and providers. All these factors were galvanized by the initial and subsequent responses to the novel Coronavirus-19 pandemic. As of early this year, more than 100 different health systems across the country have applied for a Center of Medicare and Medicaid Services (CMS) waiver to operate a hospital at home program.

As telemedicine has continued to grow in the post COVID-19 era, the scope of virtual care programs has also expanded. This coincides with an [exacerbation of capacity constraints](#) for system facilities across the country—cutting across multiple categories, including acute, post-acute, rural, and urban. At Contessa, this has meant the scope of care delivery in the home has also expanded in multiple dimensions, well beyond the four medical diagnoses initially described.

Today, that equals a full continuum of healthcare at home, from hospital-level care in the home (in lieu of being admitted to a hospital), to post-acute care in the home (in lieu of being admitted to a skilled nursing facility (SNF)), as well as to palliative care at home to address chronic and complex illness. These models of care have a record of high-quality outcomes for health systems and payers who have implemented them. [It is estimated](#) that from a third to half of all medical floor admissions can receive their care in a hospital at home model.

From a patient perspective, this is almost a no-brainer. [Research](#) has consistently shown that for patients who are clinically appropriate, hospitalization at home is associated with shorter lengths of stay, better functional outcomes, lower readmission rates and vastly superior patient experiences.

Bringing high-quality, advanced care from brick-and-mortar facilities into patients' homes would not be possible without [advanced telehealth capabilities](#) and intentional care model



design. Much more than just virtual visits, these integrated platforms of care delivery require thoughtful incorporation of telemedicine, [remote monitoring](#), care navigation and coordination as well as precise informatics to ensure quality outcomes for our patients and system partners.

The modern hospital at home program allows providers to reach more patients in less time, without patients having to leave their homes and support systems or travel to distant, time-consuming appointments. Clinicians are also able to improve efficiency and job satisfaction with a better work life balance. Contemporary approaches to workflow design are being applied to every aspect of the work life of our clinicians. Indeed, when the American Medical Association [surveyed physicians on telehealth](#), 80% agreed patients have improved access to care due to telehealth adoption.

Additionally, by delivering care where people live, we have a unique opportunity to gain invaluable insights into each patient's social determinants of health, in real time. From within the walls of the hospital, we have a constricted view of the drivers of long-term outcomes for patients— can they get to their appointments? Is there a hoarding problem? Do they spend most of their time alone? What exactly does the medicine cabinet hold? As we deepen our understanding of social determinants, we are also able to leverage social support mechanisms, advocating for patients to society and regulators.

A wide-angle lens on advanced healthcare in the home also captures how this approach to care has a meaningful impact on reducing loneliness and enhancing social connections. In the home, we reaffirm patients' social settings, and whatever determinants are recognized can sometimes be fully fixed. We make the family part of the solution instead of mere spectators.

As we approach the holiday season, it's worth noting that isolation and loneliness are often exacerbated during holidays. For someone alone by themselves in the hospital without access to family, it can be even more difficult. Bringing care home and reducing the physical and mental health impacts of loneliness is just one of many ways this approach is improving healthcare delivery wherever it is available. This will only continue with ongoing innovation, and it's easy to see why the full continuum of care in the home is clearly the new frontier of healthcare.

## VOICES FROM THE FIELD

### Empowering Healthcare Globally: 'MEDJACK' Unveils Tele-Emergency Medicine and Other Innovations Through Dynamic Storytelling

*Critical Creative Innovative Thinking(CCIT) Forum and the Department of Emergency Medicine, Aga Khan University, Karachi, Pakistan*

**By**

**Zunaira Namall |Biomedical Engineer, CCIT Innovation Fellow**

**Mahreen Sulaiman MBBS | CCIT Co-Director**

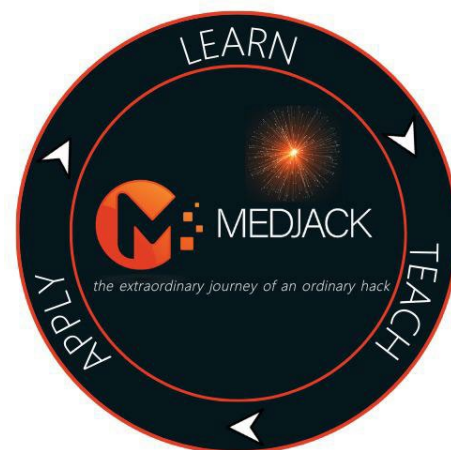
**Asad Mian, MD PhD | CCIT Director, Professor of Emergency Medicine**

In the dynamic realm of healthcare Innovation, Creativity, and Entrepreneurship (I|C|E) in Low Middle-Income Countries (LMICs), the 'MEDJACK' initiative stands as a beacon of progress, spearheading transformative solutions in tele-emergency medicine and beyond. The notable dearth of teaching and learning resources that leverage I|C|E to address healthcare and other challenges sustainably in LMICs was the problem that we were passionate to solve.

Operating from the world-renowned Aga Khan University in Karachi, Pakistan, the MEDJACK initiative leans into the guiding principles of '*Jugaar*' innovation, emphasizing agility, cost-effectiveness, and simplicity, to bridge critical gaps in Emergency Medicine, delivering efficient healthcare solutions to communities with limited resources.

The release of "*MEDJACK - The Extraordinary Journey of an Ordinary Hack*," available on Amazon and in print across Pakistan, has ignited a global discourse on resource-efficient practices in healthcare and biomedicine. Co-authored by a group of 14 contributors, the book transcends conventional methodologies, exemplifying a culture of dynamic problem-solving through the lens of I|C|E, setting a new standard for transformative healthcare practices globally, emergency care related or otherwise.

Concurrently, the '*MEDJACK Global Webinar Series*' has emerged as a vibrant platform, facilitating extensive knowledge exchange and capacity building through hosting distinguished speakers from prestigious institutions such as the Royal College of Emergency Medicine and the National Health Services of the UK, Emory University, Harvard and MIT from the US, and the University of Alberta and Ryerson University in Canada. We have also hosted several innovators, creators and entrepreneurs that are not in academic institutions, and run their own private telehealth companies. The common denominator across the board is embracing personalized innovation storytelling; to inspire a new generation of healthcare enthusiasts,



encouraging them to explore innovative solutions and implement creative problem-solving strategies within their own communities.

The 'MEDJACK' webinars, in their 3<sup>rd</sup> year now and well established for their global reach, have garnered substantial attention, attracting diverse audiences worldwide. The 'MEDJACK' YouTube channel serves as a comprehensive repository for all webinar sessions, amplifying the initiative's impact and fostering a global community of learners/practitioners committed to nurturing and promoting innovative healthcare solutions.

The initiative remains dedicated to disseminating vital knowledge and empowering innovators, creators, and entrepreneurs on a global scale. Seamlessly integrating dynamic storytelling with telemedicine and other innovative solutions, 'MEDJACK' continues its journey toward a more inclusive and accessible healthcare landscape, where the principles of I|C|E serve as the driving force behind meaningful and sustainable change.



\*\*\*\*\*

#### Reference/Hyperlinks:

- Link to MEDJACK: <https://www.amazon.com/MEDJACK-extraordinary-journey-ordinary-hack-ebook/dp/B095241QJ7>
- MEDJACK Webinars YouTube channel: [https://www.youtube.com/playlist?list=PLR-F-Mq0sdA\\_C-x\\_SdfTCUcEpQBJgrVdE](https://www.youtube.com/playlist?list=PLR-F-Mq0sdA_C-x_SdfTCUcEpQBJgrVdE)

## **Emory Rural Expanded Access to OUD Care & Linkage Using Toxicologists for Telehealth Initiated Treatment (REAL TTIME)**

*Coordinating Care Between Rural EDs, Rural Recovery Community Organizations, and a Tertiary Academic Health System Using Medical Toxicologists and a Regional Poison Center*

**By Emily Kiernan, DO FACEP FAACT | Director, Emory Rural Expanded Access to OUD Care & Linkage Using Toxicologists for Telehealth Initiated Treatment**

The Emory Medical Toxicology and Addiction Medicine service at Grady have partnered with The Health Resources and Services Administration (HRSA) to improve medical management and access to outpatient care for people with opioid use disorder (OUD) in rural counties in Georgia, United States. The **Rural Expanded Access to OUD Care & Linkage Using Toxicologists for Telehealth Initiated Treatment (REAL TTIME)** project has two main goals: 1) provide education by subject matter experts to improve comfort with the use of medication for OUD (MOUD) in the Emergency Department (ED) and 2) improve access to quality outpatient OUD support in rural communities from the ED via real time linkage to a virtual peer recovery coach (PRC) from a local recovery community organization (RCO). HRSA awarded the REAL TTIME project a \$2 million grant over four years, beginning in September 2022.

Although rates of opioid overdose deaths are increasing in all areas, reliable access to OUD treatment and structured outpatient treatment programs are scarce in rural communities. Given the widespread nature of the opioid epidemic, medical toxicologists are increasingly being called on to manage patients with OUD based on their understanding of the pharmacological and toxicological properties of opioids and the medications used for treatment. REAL TTIME aims to train rural ED providers in the diagnosis of OUD and opioid withdrawal, initiation of MOUD, and assist with timely linkage to PRCs and RCOs by implementing a novel collaboration between the Georgia Poison Center (GPC), the Georgia Council for Recovery (GC4R), PRCs, and RCOs to help bridge the gap between the OUD treatment need in rural communities, specialty physician availability at Emory, and the well-established telemedicine capabilities and expertise at the GPC.

The partnerships with GC4R, an independent organization dedicated to advocacy, training, education, and peer recovery support services, and GPC, are instrumental to our success. GC4R trains and certifies the PRCs who staff and support RCOs throughout the state. As individuals in long-term recovery, PRCs offer invaluable perspectives to the challenges of recovery and navigating the healthcare system. They are certified to provide social and emotional support using nonclinical, self-empowerment, and strengths-based methods. If available in the community, PRCs may also assist at their local RCO. These independent, non-profit organizations support recovery-focused policy advocacy, community education, peer-based recovery and social support services, and referrals for MOUD, inpatient, or outpatient treatment.

REAL TTIME uses the existing 24/7/365 clinical coverage and telemedicine infrastructure at the GPC to support rural ED providers in managing MOUD, combined with virtual video peer support in the ED to help reduce systemic barriers to receiving OUD support during and after an ED encounter. Implementation of this telehealth network in rural Georgia has allowed for evidence-based coordinated care. REAL TTIME will continue to leverage relationships with academic, community, and public health partners to increase care for patients with OUD in rural communities. The growing experience with telehealth services at Emory has supported the REAL TTIME efforts to create a sustainable long-term tool in addressing the ongoing opioid epidemic.



**Figure 1: Stakeholder interaction in REAL TIME. Recovery Community Organization (RCO), Peer Recovery Coach (PRC), Georgia Poison Control (GPC), Opioid Used Disorder (OUD), Medication for OUD (MOUD).**

**HRSA Disclosure (fine print) required for all publications that mention the grant:**

The Emory REAL TIME project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling \$2 million with 100 percentage funded by HRSA/HHS and zero percentage funded by non-government source(s). The contents are those of Emory University and do not necessarily represent the official views of, nor an endorsement, by HRSA/HHS, or the U.S. Government

## AWESOME ABSTRACTS

**“In God we trust. All others must bring data.”** – W. Edwards Deming

**\*\*\*If there are abstracts you have found to be great, please send them to the Newsletter Editor for consideration for the next issue!\*\*\***

### Telemedical support for prehospital emergency medical service in severe emergencies: an open-label randomised non-inferiority clinical trial

A. Kowark, M. Felzen, S. Ziemann, S. Wied, M. Czaplik, S. K. Beckers, et al.

Crit Care 2023 Vol. 27 Issue 1 Pages 256

Accession Number: 37391836 PMCID: PMC10311733 DOI: 10.1186/s13054-023-04545-z

<https://www.ncbi.nlm.nih.gov/pubmed/37391836>

**BACKGROUND:** A tele-emergency medical service with a remote emergency physician for severe prehospital emergencies may overcome the increasing number of emergency calls and shortage of emergency medical service providers. We analysed whether routine use of a tele-emergency medical service is non-inferior to a conventional physician-based one in the occurrence of intervention-related adverse events. **METHODS:** This open-label, randomised, controlled, parallel-group, non-inferiority trial included all routine severe emergency patients aged  $\geq 18$  years within the ground-based ambulance service of Aachen, Germany. Patients were randomised in a 1:1 allocation ratio to receive either tele-emergency medical service ( $n = 1764$ ) or conventional physician-based emergency medical service ( $n = 1767$ ). The primary outcome was the occurrence of intervention-related adverse events with suspected causality to the group assignment. The trial was registered with ClinicalTrials.gov (NCT02617875) on 30 November 2015 and is reported in accordance with the CONSORT statement for non-inferiority trials. **RESULTS:** Among 3531 randomised patients, 3220 were included in the primary analysis (mean age, 61.3 years; 53.8% female); 1676 were randomised to the conventional physician-based emergency medical service (control) group and 1544 to the tele-emergency medical service group. A physician was not deemed necessary in 108 of 1676 cases (6.4%) and 893 of 1544 cases (57.8%) in the control and tele-emergency medical service groups, respectively. The primary endpoint occurred only once in the tele-emergency medical service group. The Newcombe hybrid score method confirmed the non-inferiority of the tele-emergency medical service, as the non-inferiority margin of  $-0.015$  was not covered by the 97.5% confidence interval of  $-0.0046$  to  $0.0025$ . **CONCLUSIONS:** Among severe emergency cases, tele-emergency medical service was non-inferior to conventional physician-based emergency medical service in terms of the occurrence of adverse events.



## Telemedicine Versus In-Person Primary Care: Treatment and Follow-up Visits

M. Reed, J. Huang, M. Somers, L. Hsueh, I. Graetz, A. Millman, et al.

Ann Intern Med 2023 Vol. 176 Issue 10 Pages 1349-1357

Accession Number: 37844311 DOI: 10.7326/M23-1335

<https://www.ncbi.nlm.nih.gov/pubmed/37844311>

**BACKGROUND:** Beyond initial COVID-19 pandemic emergency expansions of telemedicine use, it is unclear how well primary care telemedicine addresses patients' needs. **OBJECTIVE:** To compare treatment and follow-up visits (office, emergency department, hospitalization) between primary care video or telephone telemedicine and in-person office visits. **DESIGN:** Retrospective design based on administrative and electronic health record (EHR) data. **SETTING:** Large, integrated health care delivery system with more than 1300 primary care providers, between April 2021 and December 2021 (including the COVID-19 pandemic Delta wave). **PATIENTS:** 1 589 014 adult patients; 26.5% were aged 65 years or older, 54.9% were female, 22.2% were Asian, 7.4% were Black, 22.3% were Hispanic, 46.5% were White, 21.5% lived in neighborhoods with lower socioeconomic status, and 31.8% had a chronic health condition. **MEASUREMENTS:** Treatment outcomes included medication or antibiotic prescribing and laboratory or imaging ordering. Follow-up visits included in-person visits to the primary care office or emergency department or hospitalization within 7 days. Outcomes were adjusted for sociodemographic and clinical characteristics overall and stratified by clinical area (abdominal pain, gastrointestinal concerns, back pain, dermatologic concerns, musculoskeletal pain, routine care, hypertension or diabetes, and mental health). **RESULTS:** Of 2 357 598 primary care visits, 50.8% used telemedicine (19.5% video and 31.3% telephone). After adjustment, medications were prescribed in 46.8% of office visits, 38.4% of video visits, and 34.6% of telephone visits. After the visit, 1.3% of in-person visits, 6.2% of video visits, and 7.6% of telephone visits had a 7-day return in-person primary care visit; 1.6% of in-person visits, 1.8% of video visits, and 2.1% of telephone visits were followed by an emergency department visit. Differences in follow-up office visits were largest after index office versus telephone visits for acute pain conditions and smallest for mental health. **LIMITATIONS:** In the study setting, telemedicine is fully integrated with ongoing EHRs and with clinicians, and the study examines an insured population during the late COVID-19 pandemic period. Observational comparison lacks detailed severity or symptom measures. Follow-up was limited to 7 days. Clinical area categorization uses diagnosis code rather than symptom. **CONCLUSION:** In-person return visits were somewhat higher after telemedicine compared with in-person primary care visits but varied by specific clinical condition. **PRIMARY FUNDING SOURCE:** Agency for Healthcare Research and Quality.

## Telemedicine Buprenorphine Initiation and Retention in Opioid Use Disorder Treatment for Medicaid Enrollees

L. R. Hammerslag, A. Mack, R. K. Chandler, L. C. Fanucchi, D. J. Feaster, M. R. LaRoche, et al.

JAMA Netw Open 2023 Vol. 6 Issue 10 Pages e2336914

Accession Number: 37851446 PMCID: PMC10585416 DOI:  
10.1001/jamanetworkopen.2023.36914

<https://www.ncbi.nlm.nih.gov/pubmed/37851446>

**IMPORTANCE:** Early COVID-19 mitigation strategies placed an additional burden on individuals seeking care for opioid use disorder (OUD). Telemedicine provided a way to initiate and maintain transmucosal buprenorphine treatment of OUD. **OBJECTIVE:** To examine associations between transmucosal buprenorphine OUD treatment modality (telemedicine vs traditional) during the COVID-19 public health emergency and the health outcomes of treatment retention and opioid-related nonfatal overdose. **DESIGN, SETTING, AND PARTICIPANTS:** This retrospective cohort study was conducted using Medicaid claims and enrollment data from November 1, 2019, to December 31, 2020, for individuals aged 18 to 64 years from Kentucky and Ohio. Data were collected and analyzed in June 2022, with data updated during revision in August 2023. **EXPOSURES:** The primary exposure of interest was the modality of the transmucosal buprenorphine OUD treatment initiation. Relevant patient demographic and comorbidity characteristics were included in regression models. **MAIN OUTCOMES AND MEASURES:** There were 2 main outcomes of interest: retention in treatment after initiation and opioid-related nonfatal overdose after initiation. For outcomes measured after initiation, a 90-day follow-up period was used. The main analysis used a new-user study design; transmucosal buprenorphine OUD treatment initiation was defined as initiation after more than a 60-day gap in buprenorphine treatment. In addition, uptake of telemedicine for buprenorphine was examined, overall and within patients initiating treatment, across quarters in 2020. **RESULTS:** This study included 41 266 individuals in Kentucky (21 269 women [51.5%]; mean [SD] age, 37.9 [9.0] years) and 50 648 individuals in Ohio (26 425 women [52.2%]; mean [SD] age, 37.1 [9.3] years) who received buprenorphine in 2020, with 18 250 and 24 741 people initiating buprenorphine in Kentucky and Ohio, respectively. Telemedicine buprenorphine initiations increased sharply at the beginning of 2020. Compared with nontelemedicine initiation, telemedicine initiation was associated with better odds of 90-day retention with buprenorphine in both states (Kentucky: adjusted odds ratio, 1.13 [95% CI, 1.01-1.27]; Ohio: adjusted odds ratio, 1.19 [95% CI, 1.06-1.32]) in a regression analysis adjusting for patient demographic and comorbidity characteristics. Telemedicine initiation was not associated with opioid-related nonfatal overdose (Kentucky: adjusted odds ratio, 0.89 [95% CI, 0.56-1.40]; Ohio: adjusted odds ratio, 1.08 [95% CI, 0.83-1.41]). **CONCLUSIONS AND RELEVANCE:** In this cohort study of Medicaid enrollees receiving buprenorphine for OUD, telemedicine buprenorphine initiation was associated with



retention in treatment early during the COVID-19 pandemic. These findings add to the literature demonstrating positive outcomes associated with the use of telemedicine for treatment of OUD.

## **Telehealth Utilization in Trauma Care: The Effects on Emergency Department Length of Stay and Associated Outcomes**

N. Alter, H. Arif, D. D. Wright, B. Martinez and A. Elkbuli

Am Surg 2023 Vol. 89 Issue 11 Pages 4826-4834

Accession Number: 37132648 DOI: 10.1177/00031348231173944

<https://www.ncbi.nlm.nih.gov/pubmed/37132648>

**INTRODUCTION:** Since the onset of the Covid-19 Pandemic, Telehealth utilization has grown rapidly; however, little is known about its efficacy in specific areas of healthcare, including trauma care in the emergency department. We aim to evaluate telehealth utilization in the care of adult trauma patients within United States emergency departments and associated outcomes over the past decade. **METHODS:** PubMed, Google Scholar, EMBASE, ProQuest, and Cochrane were searched for relevant articles published from database conception to Dec 12th, 2022. Our review includes studies that assessed the utilization of telehealth practices within a United States emergency department for the treatment of adult (age  $\geq 18$ ) trauma patients. Evaluated outcomes included emergency department length of stay, transfer rates, cost incurred to patients and telehealth implementing hospitals, patient satisfaction, and rates of left without being seen. **RESULTS:** A total of 11 studies, evaluating 59,319 adult trauma patients, were included in this review. Telehealth practices resulted in comparable or reduced emergency department length of stay for trauma patients admitted to the emergency department. Costs incurred to the patient and rates of leaving without being seen were significantly reduced following telehealth implementation. There was no difference in transfer rates or patient satisfaction for telehealth practices compared to in-person treatment. **CONCLUSION:** Emergency department telehealth utilization significantly reduced trauma patient care-related costs, emergency department length of stay, and rates of leaving without being seen. No significant differences were found in patient transfer rates, patient satisfaction rates, or mortality rates following emergency department telehealth utilization.