Surgical Telehealth: Impact on Practice, Outcomes and Disparities

Chad Ellimoottil, MD, MS
About me

- **Clinical:** Physician who has performed video visits since 2016
- **Operations:** Medical Director of Telehealth for Department of Urology
- **Research:** Director of Telehealth Research Incubator
What is telehealth?

Using remote technology to diagnose, treat and manage health

virtual care = telehealth = telemedicine = digital health
Major regulatory changes to telehealth in response to COVID-19
Telehealth has been around for decades, but barely used


Viewed as the biggest barrier = originating site requirement
In the last few years, commercial insurers and Medicaid have removed the originating site requirement or have added the patient’s home as an eligible site.

- Blue Cross Blue Shield of Michigan (2016)
- Michigan Medicaid joins 19 other states to allow telehealth from patient’s home (2019)
- Exceptions for Medicare: stroke, ESRD, alternative payment models
- Medicare Advantage was allowed to offer telehealth from home (2020)
Finally, Medicare allowed patients to connect from home in March 2020

 Patients can connect from home

 Providers can practice across state lines

 Reimbursed the same as in-person

 Patients can have co-payments waived

 Privacy rules relaxed so most common tech could be used

 Medicare program began paying for virtual care


COVID-19
Telehealth trends
Changes in outpatient care due to COVID

Ambulatory Visits by Type and US Region (#)

- Office Visits
- Telehealth Visits
- Total Visits

Ambulatory Visits - US (163,251,526 Total Visits)

Visits (In Millions)

January 2020 | February | March | April | May | June | July
---|---|---|---|---|---|---
Changes in outpatient care due to COVID

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Office Visits  Telehealth Visits  Total Visits

January 2020  February  March  April  May  June  July

<1%  21%
Anticipated regulatory and medicolegal considerations
Anticipated policy changes after the public health emergency

“With these transformative changes unleashed over the last several months, it’s hard to imagine merely reverting to the way things were before.”

Seema Verma
CMS Administrator
Permanent removal of the origination site requirement is necessary for telehealth to survive

Section 1834(m) of the Social Security Act will need to be changed to permanently remove these restrictions
Waived during the public health emergency in March 2020

<table>
<thead>
<tr>
<th>Federal bill</th>
<th>Title (# Sponsors)</th>
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<tr>
<td>HR 7663</td>
<td>Protecting Access to Post-COVID-19 Telehealth Act of 2020 (9)</td>
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<td>HR 7391</td>
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<td>HR 4932</td>
<td>CONNECT for Health Act of 2019 (60) (limited waivers)</td>
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<tr>
<td>S 2741</td>
<td>CONNECT for Health Act of 2019 (40) (limited waivers)</td>
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The stance of relevant stakeholders

- 340 organizations signed a letter to Congress to continue telehealth after Public Health Emergency (H.R. 7663)
- State Medicaid will continue coverage
- Most commercial payers will Medicare’s lead
- National Governor's Association views telehealth favorably
Billing changes for 2021 will make telehealth billing easier

- Medicare billing changes were set to occur outside of the telehealth surge
- Effective January 1, 2021
  - Billing is based on medical decision making or time
  - Physical exam is not necessary for billing (medically appropriate history and/or examination" is required)
  - Time-based coding is based on total time spent on the date of service
  - Medical decision making is made easier
Licensure laws and practicing across state lines

- Historically, you must be licensed in the state where the PATIENT is located to practice medicine
- Governed at state level
- Relaxed requirement during COVID-19
- Likely return to pre-COVID-19 regulation after the public health emergency
Long-term solution for practicing across state borders

- Interstate Medical Licensure Compact offers expedited pathway to licensure across multiple states
- Agreement between 29 states, the District of Columbia and the Territory of Guam
Malpractice and telehealth

- Telehealth is generally considered low-risk, but there is not enough telehealth activity to be able determine patterns

- **Make sure malpractice insurance covers telehealth**
  - Anecdotes of insurance premiums increasing

- General considerations
  - Was the patient’s condition appropriate for a telehealth visit?
  - Did the encounter meet the same standards as an in-person encounter?
  - Did the provider obtain informed consent?
  - Did the provider offer an in-person visit if the quality of the encounter was inadequate?
  - Was the provider acting within their scope of practice and telehealth laws?
Will telehealth improve or worsen disparities?
How can telehealth improve care for populations who face challenges seeking care?

- Patients who travel far for specialist care
- Patients who cannot easily take time off of work
- Patients who have financial or logistical challenges with transportation

In order for telehealth to improve health disparities, it needs to be accessible.
Essential “factors” for successful telehealth

- Access to high speed internet (broadband)*
- Access to computer or smartphone*
- Trust and comfort
- Language concordance
- Technological literacy
- Easy access to additional health services

*Digital access
### Essential “factors” for successful telehealth

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### Populations at-risk for lacking factors

- **Older adults** – comfort with the technology
- **Rural** – access to broadband
- **Low-income** – availability of connected devices
- **Racial/ethnic minorities** – comfort/trust with the healthcare system
- **Disabilities and complex medical needs**
- **Non-English speaking**

*Many patients will lack a combination of elements

*Populations at-risk for lacking access to telehealth are also the ones who have health disparities that can be improved through telehealth

*Digital access
Populations at-risk for lacking digital access*

*digital access = computer with hi-speed internet OR smartphone with data plan

Roberts ET, Mehrotra A. Assessment of Disparities in Digital Access Among Medicare Beneficiaries and Implications for Telemedicine. JAMA Intern Med.
Telehealth grew across at-risk populations, but there are clear disparities in growth.

TRI analysis of BCBSM PPO claims (Pre and Post defined as March 1, 2020)
Older adults are at risk for a digital divide with telehealth expansion

Concerns about telehealth visits
AMONG ADULTS AGE 50–80 SURVEYED IN JUNE 2020

- 75% Health care providers not able to conduct a physical exam
- 67% Quality of care is not as good in telehealth visits compared to in-person visits
- 45% Not feeling personally connected to the health care providers
- 25% Having difficulty seeing/hearing health care providers
- 24% Privacy concerns

Learn more: www.healthyagingpoll.org | Contact us: healthyaging@umich.edu
Older adults less likely to use video
Main takeaways on telehealth and disparities

- While there are differences in levels of adoption, there is no broad population that is completely excluded.

- Goal should be to develop and implement policies that mitigate disparities in use.

- Examples
  - Be flexible with technology (e.g., audio-only should be reimbursed)
  - Fund community centers for education and technical support
  - Expand broadband
  - Create subsidies for connected devices
How will telehealth impact healthcare spending?
Framework for understanding the impact of telehealth on healthcare costs

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Study of video visits and in-person visits showed similar provider costs

- **Method:** Time-driven activity based costing (TDABC)
- **Urology and general surgery clinic**
- **Findings:**
  - Overhead spending low per visit
  - Physicians were spending more time on video visit vs in-person visits

Understanding the cost savings of video visits in outpatient surgical clinics. (mHealth 2020)
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<td>Payer</td>
<td>More appointments New billable services</td>
<td>Reduces adverse events, low value care</td>
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Does the use of telemedicine prevent emergency room and urgent care visits? (i.e., reduce payer costs)

- The belief that it does is the fundamental reason why BCBSM began to pay for video visits from home in 2016

Symptoms of upper respiratory infection → Telemedicine visit $ → Urgent care/emergency room $$$$ → Urgent care/emergency room $$$$ → PCP/2nd telemedicine $

Association between Direct-to-Consumer Telemedicine Visits for Acute Respiratory Infections and Downstream Related Visits. (Under Review)
We noted a small increase in additional healthcare encounters when acute care visits were initiated by telemedicine.

<table>
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<tr>
<th>Table 1</th>
<th>Rate and site of related visits within 7 days after an index visit for acute respiratory infection</th>
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<td>Index visit was through telemedicine (n=28,716)</td>
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<tr>
<td>Any site</td>
<td>10.3%</td>
</tr>
<tr>
<td>Office</td>
<td>6.0</td>
</tr>
<tr>
<td>Emergency room</td>
<td>0.5</td>
</tr>
<tr>
<td>Urgent care</td>
<td>1.7</td>
</tr>
<tr>
<td>Telemedicine</td>
<td>2.5</td>
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Note: Rate refers to frequency of acute respiratory infections 7-day episode that had a downstream related visit.
Source: Analysis of Blue Cross Blue Shield of Michigan insurance claims, 2016-2019.
Main takeaways and future work on telehealth and cost

● Telehealth can impact healthcare spending from the payer, provider and patient perspective
  ○ Patients – likely cost savings, but most monitor for overuse
  ○ Providers – likely cost neutral or higher cost
  ○ Payers – unknown at this time

● Overall effect on spending depends on whether telehealth is a substitute for traditional healthcare or an expansion of traditional healthcare
Will the growth of telehealth improve health?
Framework for assessing the impact of telehealth on clinical outcomes
Framework for assessing the impact of telehealth on clinical outcomes

Underlying mechanisms

- Easier access to a healthcare provider?
- Improves frequency of patient-healthcare provider interactions?
- Enables self-management?

Technology

Improved clinical outcomes
Framework for assessing the impact of telehealth on clinical outcomes

Underlying mechanisms

- Easier access to a healthcare provider?
- Improves frequency of patient-healthcare provider interactions?
- Enables self-management?

Video visits

Source: AHRQ’s report on Telehealth for Acute and Chronic Conditions (2019)
Framework for assessing the impact of telehealth on clinical outcomes

Underlying mechanisms

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Remote patient monitoring

Source: Mapping the Evidence for Patient Outcomes From Systematic Reviews (AHRQ 2016)

- Well studied in chronic conditions such as diabetes, COPD, CHF, HTN
- Reduced hospitalizations, mortality and improved measures such as HgA1c
- There may be publication bias (positive results tend to be published) so the population level effect is still not obvious
Michigan Medicine uses FCC funding to build a home monitoring program

- 38 y/o male with type 1 diabetes, heart failure, liver disease and on dialysis

- Jan – March 2020: 8 ED visits and 9 inpatient hospitalizations, no readmissions since enrollment

- But patient results are highly variable based on clinical tools available (e.g., specialist input, community paramedics, home therapy)

Data from Michigan Medicine electronic medical record

Grace Jenq, MD (Geriatric medicine)
Main takeaways on telehealth and clinical outcomes

- It is not the technology, but how the technology is used that leads to better clinical outcomes.

- Clinical outcomes observed in RCT will differ from what is observed in practice (e.g., no specific protocol).
Thank you!

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Telehealth research and policy.