



Welcome... We Will Begin Momentarily

The HIMSS Physician Community November 19, 2019 event will begin promptly at 1:30pm CT.

#DrHIT

HIMSS

transforming health through information and technology™

Providing Quality Telehealth Care

November 19, 2019

Physician Community Webinar Series

HIMSS
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PHYSICIAN COMMUNITY



Welcome to the Physician Community Webinar Series Sponsored by the HIMSS Physician Community

- A complimentary virtual event.
- Covers a wide range of topics on Medical Informatics, HIEs (Health Information Exchange), Standards and Interoperability, eMeasures and Quality Initiatives, and how it affects, impacts and involves physicians.
- For more information, contact Yvonne Patrick at ypatrick@himss.org.

Welcome to the Physician Community Webinar Series Sponsored by the HIMSS Physician Community

- Please insert all questions in the Q & A box located on the bottom right of your screen.
- A copy of the recording and slide deck will be available for download within 3 business days.

Speaker:



Brian Levy, MD

President and CMO, Peak Informatics

HIMSS Physician Committee Member

Dr. Levy is an executive healthcare physician with deep expertise in creating software and content. He is passionate about improving the delivery of healthcare for patients, improving patient outcomes, and achieving semantic interoperability of patient records. Dr. Levy continues to practice medicine, using the latest telehealth technology in delivering everyday patient care as well as in a primary care practice.

Learning Objectives

- Establish clear guidelines about what patients you can treat, and which ones should be redirected to a medical facility
- Discuss telemedicine-specific guidelines based on current evidence-based care
- Review the many components of the physical exam and manage patient expectations for their telehealth visit

William Osler

It is much more important to know what sort of a patient has a disease than what sort of a disease a patient has.



Agenda

Telehealth overview

Sample Cases

Virtual physical

Asynchronous visits

Behavioral health

Remote patient monitoring

Chronic diseases

Conclusion

Telehealth Definition

- AHRQ: *Use of information and telecommunications technology in health care delivery that involves collaboration with a health care professional across distance or time to address a diagnosis, health condition, or the overarching needs of a patient.*
- ACP: **Telehealth**, or **telemedicine**, is the use of technology to deliver care at a distance.

Telehealth is Broad

Live video

Phone calls

Store and
forward

Remote patient
monitoring

Mobile health

Urgent care

Behavioral
health

Chronic
disease

Virtual primary
care

Lifestyle – e.g.
hair loss, STD

Telehealth Barriers



Fitting telehealth into the daily flow of a medical practice



No patient access



Concerns about adverse outcomes and discrepancies in diagnosis and management between telehealth and in-person consultations



Lack of training, reimbursement



Liability issues



Privacy issues

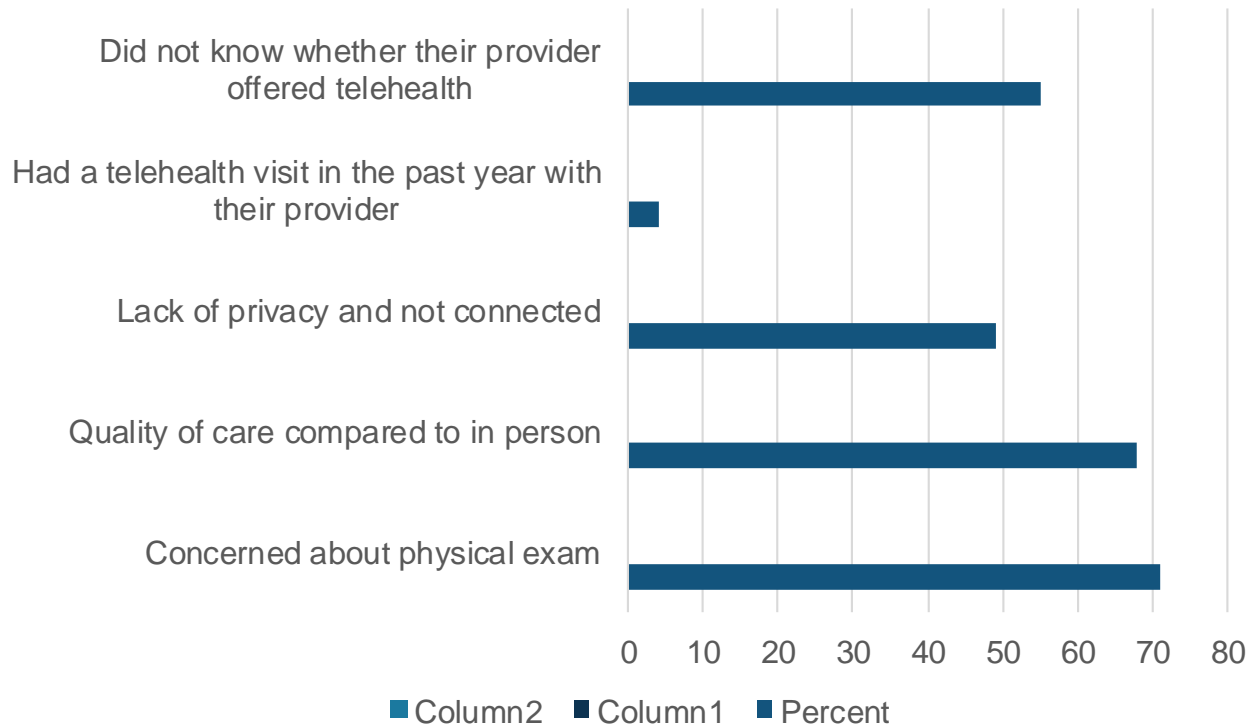


State licensure

Age Barriers

- AARP study on Telehealth and older patients

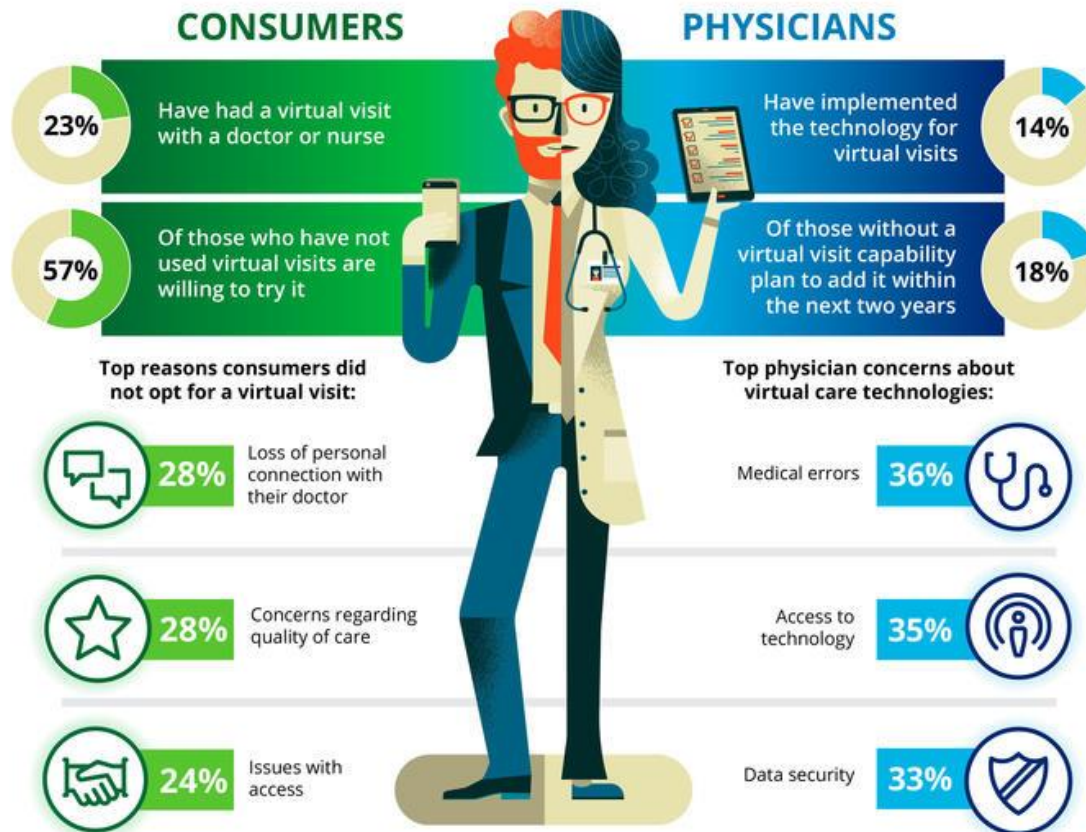
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Patient Expectations

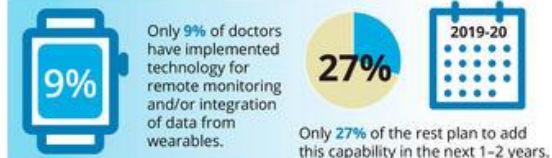
- A new survey from Deloitte of U.S. physicians and healthcare consumers finds provider telehealth offerings are lagging behind consumer expectations. While **80 percent** of consumers have tried or are willing to try virtual care options, just **14 percent of providers** have implemented telehealth technology, and another **18 percent** will implement it in the next two years.

Consumer interest in virtual care outpaces physician adoption:



Similarly, consumers are embracing wearables and other technologies to track their health information...

...but doctors' ability to use patient-generated data is lagging behind consumer interest.



Reimbursement

- CMS recently offered a reimbursement option for remote patient monitoring services in its [final 2019 Physician Fee Schedule and Quality Payment Program](#).
- Many states have **parity laws** that require commercial health insurance companies to cover services provided through **telehealth** to the same extent as those services are covered in person.

Acute Care Patient Cases



Sore throat



Rash



Muscle pain



Dysuria



Sinusitis



Flu

Case 1

Sore throat

CC: Sore throat

HPI: 28 yo woman complains of sore throat. No cough. Fever to 100. No swollen glands. **PMH:** None

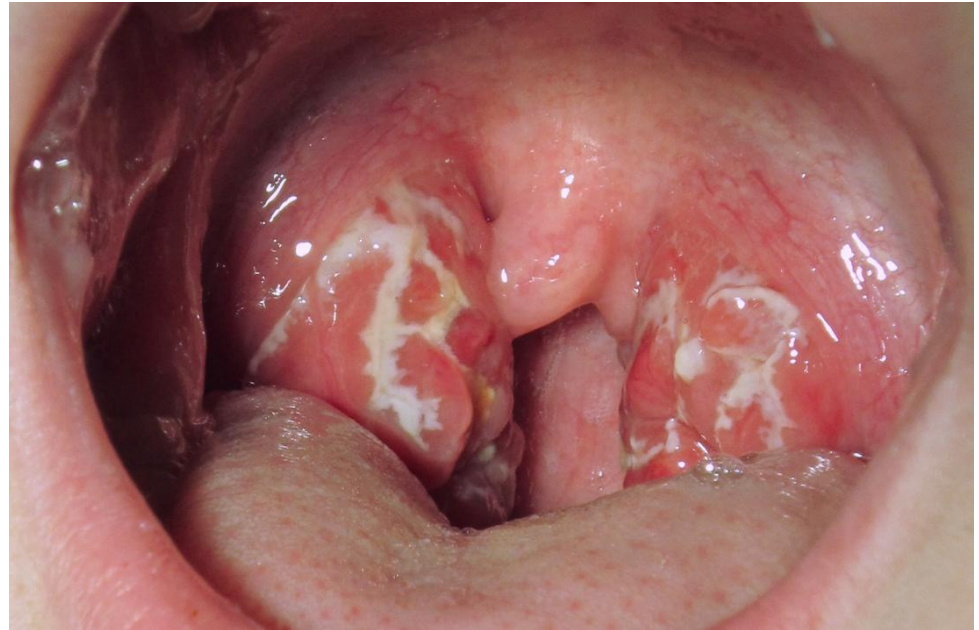
ALL: NKDA

Objective: Patient appears in no acute distress. She is talking in full sentences.

Assessment: Centor Score – 4/4

Differential: Strep throat, viral pharyngitis, tonsillar abscess

Plan: Amoxicillin for 10 days
Follow up if not improving. Go to the ER if you have trouble swallowing or stridor



Centor score:

- 0: 1 to 2.5%
- 1: 5 to 10%
- 2: 11 to 17%
- 3: 28 to 35%
- ≥4: 51 to 53%

Advise about red flags:

- Trouble swallowing
- Stridor

Case 2

Sore throat

CC: Sore throat

HPI: 28 yo woman complains of sore throat. Has a cough, runny nose, temp to 100, no swollen glands.

PMH: None

ALL: NKDA

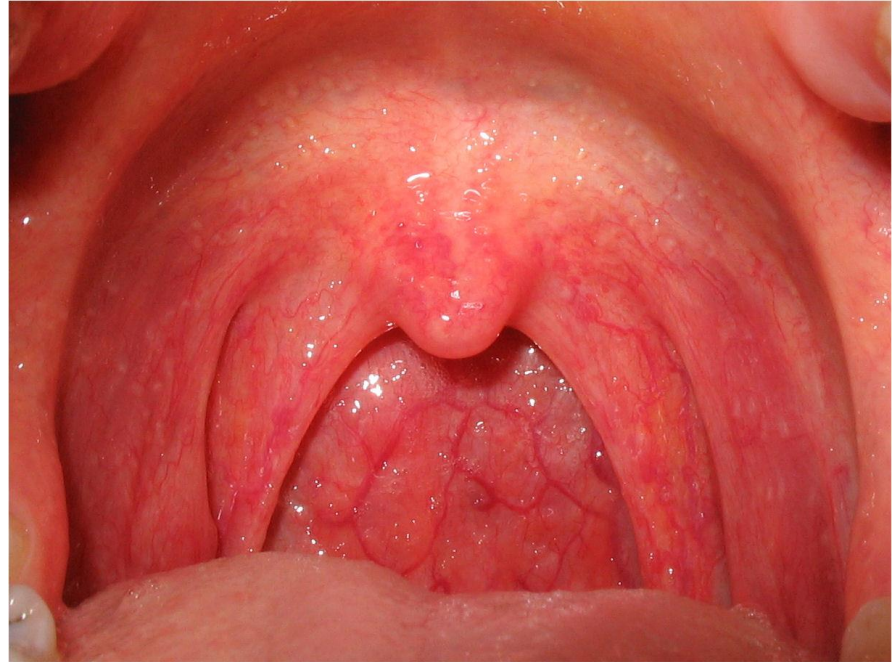
Objective: Patient appears in no acute distress. She is talking in full sentences.

Assessment: Centor Score – 1/4

Differential: Viral pharyngitis.

Chances of strep only 5 to 10%

Plan: Ibuprofen/Tylenol, hydration.
Follow up if not improving. Go to the ER if you have trouble swallowing or stridor



Educate patient that strep throat is very unlikely and that antibiotics will likely not be helpful

Case 3

Rash

CC: Rash

HPI: 55 yo man complains of a rash for the last couple of days. Before the rash started, he had pain in the area. The rash is limited to one area on the back.

PMH: HTN

ALL: PCN

Meds: HCTZ

Objective:

Assessment: Likely shingles.

Differential: contact dermatitis, tinea, cellulitis, folliculitis

Plan: Valacylovir



Case 4

Rash

CC: Rash

HPI: 12 yo complains of a rash for the last couple of days. Started with a cut. Is red, hot and swollen.

PMH: None

ALL: PCN

Meds: None

Objective:

Assessment: Likely purulent cellulitis

Differential: non-purulent cellulitis, tinea, cellulitis, folliculitis

Plan: Referral to Urgent Care or ER for possible abscess drainage



Case 5 Muscle pain

CC: Sore biceps

HPI: 45 year old man who did 100 pullups yesterday and is very sore. He also complains of red urine.

PMH: None

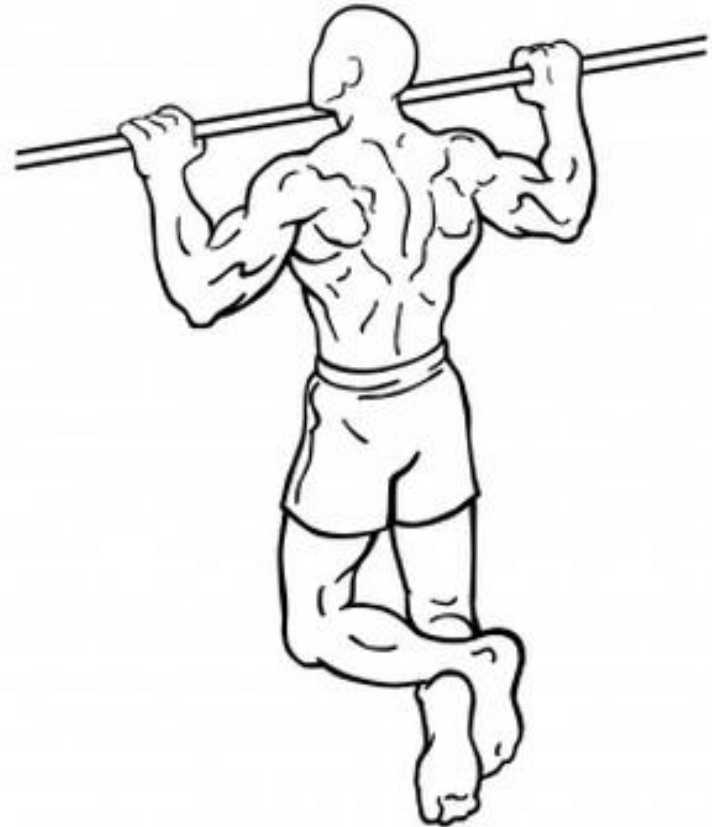
MEDS: None

ALL: Penicillin

Objective: On the video, appears in no acute distress.

Assessment: Rhabdomyolysis

Plan: Send to ER right away.



Another recent patient stated she took a spin class on Thursday and her legs are sore and her urine is brown.

Case 6 Dysuria

CC: Pain with urination

HPI: 25 yo woman, not pregnant complains of dysuria, urinary frequency, urgency. No fevers, chills, N/V, vaginal bleeding or discharge, or back pain

PMH: None

MEDS: None

ALL: NKDA

Objective: On the video, appears in no acute distress.

Assessment: UTI

Plan: Macrobid. Azo

UTI home test kits:

- Not all FDA certified
- Sensitivity varies and not that high
- Use as another indicator of probable UTI with other usual symptoms

Potential red flags:

- UTI in the last 3 months or 3 or more UTIs in the past year – risk for MDR bacterial
- Signs of pyelonephritis
- Pregnancy
- Possible STD
- Male

Follow up:

- Fevers
- Chills
- Nausea
- Vomiting
- Back pain

Cipro not
recommended
as first line

Virtual Physical Exam

Patient is speaking full sentences

Mood and behavior appropriate

No signs of distress

No wheezing heard

Audible congestion in his voice

Coughing on the phone

Able to touch chin to the chest without pain

No facial muscle weakness noted

Describe rash, conjunctiva, pharynx

Home Test Kits

- Glucose
- HIV
- Pregnancy
- Stool – fecal occult blood test
- Strep tests
- UTI – nitrites and leukocytes
- Vaginal pH testing

Case 7 Sinus symptoms

CC: Sinus pain and congestion

HPI: 50 yo man with 2 weeks of congestion, purulent nasal discharge, cough, sore throat, tooth pain. Worsening symptoms with low grade fever.

PMH: None

MEDS: None

ALL: Amoxicillin

Objective: On the video, appears in no acute distress. Sounds congested.

Assessment: Acute Sinusitis

Plan: Sinus rinses, Flonase, Doxycycline

Major Symptoms

- Purulent anterior nasal discharge
- Purulent or discolored posterior nasal discharge
- Nasal congestion or obstruction
- Facial congestion or fullness
- Facial pain or pressure
- Hyposmia or anosmia

Minor Symptoms

- Headache
- Ear pain, pressure, or fullness
- Halitosis
- Dental pain
- Cough
- Fever (for subacute or chronic sinusitis)

No Z-Pack!

Potential red flags:

- Immunocompromised
- Severe headache
- Visual changes
- Nausea/vomiting

Case 8

Sinus Symptoms

CC: Runny nose, green sinus drainage, cough, low grade temp

HPI: 44 yo with sinus drainage, headache, cough for 3 days.
Temp to 100.5.

PMH: HTN

MEDS: None

ALL: NKDA

Objective: On the video, appears in no acute distress. Sounds congested.

Assessment: Common cold

Plan: Supportive care

Common Symptoms

- sore throat
- runny nose
- coughing
- sneezing
- headaches
- body aches

No Z-Pack!

Potential red flags:

- Asthma
- Respiratory conditions
- Weakened immune system

Case 9 Flu

CC: Fever, chills

HPI: 60 yo with abrupt fever to 101.5, cough, sore throat, runny nose, myalgias, headache. No flu shot this year.

PMH: Asthma

MEDS: Albuterol MDI, Advair

ALL: NKDA

Objective: On the video, appears in no acute distress.

Assessment: Likely influenza

Plan: Tamiflu or Baloxovir

Encourage sick patients to seek care from the comfort of their homes, reducing the number of people who they could spread the virus to—including at-risk populations such as pregnant women, newborn babies, elderly patients, and those with weakened immune systems.

Reduce your exposure to the flu!

Potential red flags:

- Difficulty breathing
- Uncontrolled asthma
- Heart diseases

Case 10

Flu Exposure

CC: My husband has the flu

HPI: No fevers, no chills

PMH: Asthma

MEDS: Albuterol MDI, Advair

ALL: NKDA

Objective: On the video, appears in no acute distress.

Risk factors for complications

- Asthma
 - Neurologic and neurodevelopment conditions
 - Blood disorders (such as sickle cell disease)
 - Chronic lung disease (COPD and cystic fibrosis)
 - Endocrine disorders (such as diabetes mellitus)
 - Heart disease (such as congenital heart disease, congestive heart failure and CAD)
 - Kidney disorders
 - Liver disorders
 - Metabolic disorders (such as inherited metabolic disorders and mitochondrial disorders)
 - People who are obese with a BMI of 40 or higher
 - People younger than 19 years of age on long-term aspirin- or salicylate-containing medications.
 - People with a weakened immune system due to disease (HIV, leukemia, cancer) or medications (chemotherapy or radiation treatment for cancer, chronic corticosteroids or other drugs that suppress the immune system)
 - Adults 65 years and older
 - Children younger than 2 years old¹
 - Pregnant women and women up to 2 weeks after the end of pregnancy
 - American Indians and Alaska Natives
- People who live in nursing homes and other long-term care facilities

Assessment: Influenza exposure.
Did the husband have a positive flu test?

Plan: Consider Tamiflu for prophylaxis after reviewing risks and benefits

Referrals

- Blood in the stool
- Chest pain
- Ear pain?
- Reportable conditions – STDs, dog bites
- Controlled substance requests

Asynchronous Virtual Care

- ONC defines asynchronous telemedicine as "store-and-forward video-conferencing," which is the "transmission of a recorded health history to a health practitioner, usually a specialist."
- VA states, "Asynchronous telemedicine involves acquiring medical data, then transmitting this data to a doctor or medical specialist at a convenient time for assessment offline."

A study published in the Journal of General Internal Medicine that compared blood pressure control and healthcare use between patients who received "virtual visits" structured as asynchronous online interactions and typical hypertension care concludes, "Among patients with reasonably well-controlled hypertension, virtual visit participation was associated with equivalent blood pressure control and reduced in-office primary care utilization."

Asynchronous Virtual Care

Radiology - forward X-rays or MRIs to specialists at major medical centers for review.

Dermatology - take digital photos of patients' skin conditions and forward the images to dermatologists for review and determination of treatment if needed.

Ophthalmology, eye screenings for diabetic retinopathy, a disease that is a major cause of blindness among individuals with diabetes, can be captured digitally by retinal cameras and transmitted to a specialist for review.

Behavioral Health

Addictions
Bipolar disorders
Depression
Eating disorders
LGBTQ support
Grief and loss

Men's issues
Panic disorders
Stress
Trauma and PTSD
Women's issues



Importance of screening process – e.g. history of psychosis or suicide attempts



Crisis protocol - Handing patient over to crisis team/center

Remote Patient Monitoring

- Post-surgical
- Hypertension – digital BP cuffs
- Voice apps to remind diabetic patients to takes their medicine
- Surveillance for falls



Chronic Conditions

- CHF
- Diabetes
- Hypertension

Access to specialists

Underserved and rural patients



Telehealth Success

- Indian Health Service ran a pilot telehealth program in Alaska which decreased the percentage of patients who had to wait at least 5 months for a new patient visit from 47% to 8%
- Department of Veterans Affairs showed a 20% reduction in readmissions with the use of telehealth services to improve home care for patients with multiple chronic diseases.
- Check out the [HIMSS20 pre-conference Telehealth Symposium](#)
 - March 9, 2020 | Orlando, FL

Effectiveness of Outpatient Telehealth Consultations

- Does the use of telehealth for outpatients requiring sub-specialty consultation improve clinical outcomes, reduce costs, or increase patient satisfaction? AHRQ review of 106 studies:
 - Telehealth consultations improve clinical outcomes in the areas of wound care, psychiatry, and certain chronic conditions
 - Telehealth may increase patient satisfaction
 - May reduce cost and health care utilization
 - Insufficient evidence regarding potential harms

Conclusion

EBM

Practice evidence based medicine

Guidelines

Tailor treatment guidelines for telemedicine

- Conditions to treat and refer
- Red flags for triage
- Follow up education

Patients

See more patients than you realize!

Q & A

Please insert all questions in the Q & A box located on the bottom right of your screen.

References

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Improving the Health of a Population: The Journey from CMIO to Informatics Executive

December 5, 2019 | 10:00am – 11:00am CDT

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<https://himss.webex.com/himss/onstage/g.php?MTID=e671fef15db22c8b0877290bf76939eee>



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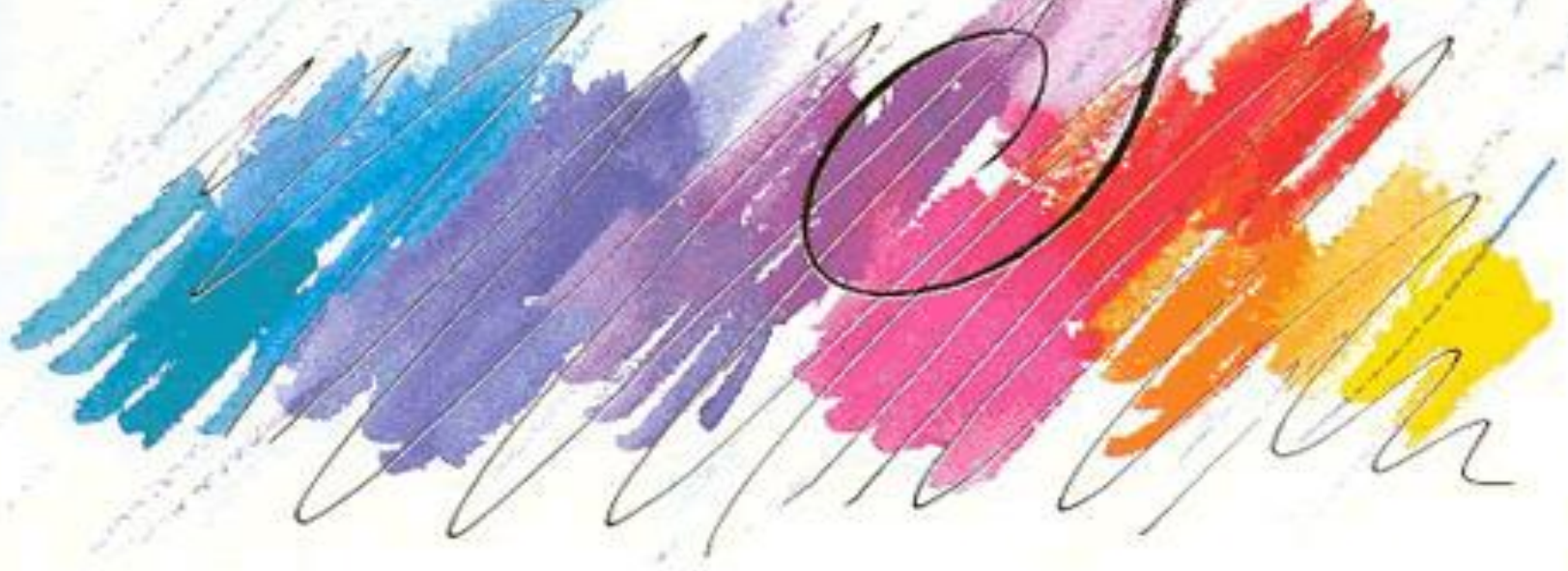
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