UCLA Health System

Seeing Patients Using CISCO's Health Presence (Telehealth "Care at a Distance" Platform): Reality and Future Directions

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- March , 2012

Outline

- Context
- Experience with Telehealth at Cisco (HealthPresence)
- Future of Telehealth care at a distance
- Disclosures - none

Cisco context

- On site primary care clinic opened November, 2008
- Called LifeConnections Health center
- Focused on 50,000 San Jose employees + dependents
- And 70,000 employees in 80 countries
- Paperless, wireless clinic environment
- >15,000 patient vists/year
- Tech savvy population
- Fundamental business enables remote work
- Travel constrained for economic reasons
- HealthPresence launched summer 2009

HealthPresence at Cisco

- Research Triangle Park (RTP) N.C.
- 4200 employees
- Small RN staffed on site clinic + lab for employees
- Wove in on screen NC patients with SJ pts daily – 4-5/d
- I have NC medical license
- Set up full referral panel, scope of services, lab
- Make sure e-Rx worked; lab interfaces, etc.
- Well received by patients
- Local Duke clinic FP: "you will put us out of business"

Cisco on site San Jose Clinic

Cisco Health Center: H1N1 vaccines

LifeConnections Health Center Reception Area

LCHC Care Suite

Intake with exam room in background

Cisco HealthPresence

- Immersive experience
- Ease of use
- Integrated environment
  - TelePresence
  - Medical devices
  - Knowledge systems
  - Collaboration Tools
- Adaptive solution
- Scalable

Patient experience

- Play video
- http://www.cisco.com/web/strategy/healthcare/cisco_healthpresence_solution.html
- Scroll down to patient experience video

HealthPresence Scope of Services

- Health Promotion and Disease Prevention
- Travel Medicine
- Minor illness and injury
- Chronic illness care
- Counseling
- Lab follow up

Some Advantages of Care at a Distance

Telehealth advantages

- Distance – geography and time
- Capacity – scarcity in clinical expertise and optimizing provider cascade
- Scheduling across time zones 24x7x365
- Collaboration – one patient to many providers, many-to-many providers and eventually many-to-many patients
- Personalization – introducing information into the encounter to enriches patient learning and engagement
- Diagnostic capacity and instrumentation – increasing clinical accuracy, training by specialists (case based)
- Competitive advantages– reach, footprint, expertise

Telehealth Challenges

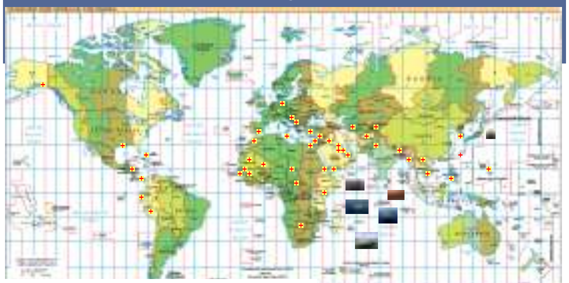
- Direct hands on physical exam challenges
- Many procedures
- Patient room must be for full view
- Can be harder to judge body language – fidgeting, etc.
- Scope of services important
- Technology glitches
- Need to know distant “staff “, referral docs, next step testing facilities –US, MRI, and labs *well* and work out referral processes, data transfer, maps, etc.

HealthPresence eXchange platform

Service Continuum

Tripler Army Medical Center HI

Locations Submitting Teleconsultations



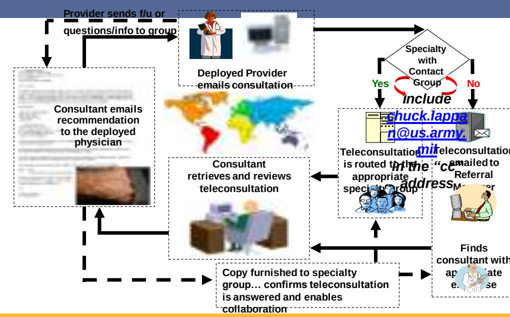
http://www.cia.gov/cia/publications/factbook/reference_maps/pdf/time_zones.pdf

Supported Facility

Afghanistan	Continental US)	Guam	Kyrgyzstan	Peru	United Arab Emirates
Albania	Djibouti	Guatemala	Laos	Philippines	US & Australian Navy afloat
Bahrain	Ecuador	Guinea	Mali	Qatar	Yemen
Belize	Egypt – MFO Sinai	Hurricane Katrina	Mauritania	Senegal	
Bosnia	Haiti Relief	Iraq	Morocco	Spain	
Botswana	Honduras	Italy - Sicily	Nepal	Thailand	
Congo	Germany	Kenya	Okinawa	Turkey	
Chad	Ghana	Kuwait	Pakistan	Turkmenistan	

Map as of 1 April 2011

AKO Teleconsultation Program Business Practice For Deployed Providers



Image

Referring Physician Narration

The attached photo is of a local woman, probably age 40's. Has had what is on her leg for a couple of years (as best I can tell with her story). She reports that she has been to the Province hospital, and even to the hospital in the capital, which is quite a distance away (several days by surface travel). She has had a couple of treatments, but did not help. It is not particularly painful, though she does state it feels like "crawling" on her skin. Otherwise she is relatively healthy and has no other obvious illnesses or derm pathology.

Appreciate your thoughts, and I recognize it's not a lot of information to go by with some abstract history and a single photo. I've already forewarned her that it is unlikely I can do anything which will resolve this.

Dermatologist's Recommendation / Dx

S: 40's female with more than 2 years of a largely asymptomatic, expanding lesion on the left leg. It failed to respond to limited treatment at a local hospital. Review of systems is essentially negative.

O: Focal examination of the left leg demonstrates a large, variably indurated plaque covering most of the medial surface. There are small erosions and in some areas, a verrucous character with small hemorrhagic foci.

Assessment/Recommendations - This is very likely a deep fungal infection. Specifically, it is most likely to be chromoblastomycosis. It is caused by any one of several dematiacious fungi in the tropics. It is most common on the foot and leg and probably begins following traumatic inoculation of plant matter. The differential would include other deep fungals, but having spent a lot of time in the tropics recently, I would be surprised if it was anything but chromoblastomycosis. If possible, a confirmatory biopsy could be done or a touch prep of cut tissue (prime areas would be the indurated, verrucous leading edge) . Unfortunately, treatment is quite difficult and may not ultimately be successful even in the best of circumstances. Treatment would be comprised of a very long course of systemic fungicidal and fungistatic agents (i.e. terbinafine + a systemic azole) with or without debridement. As the lesion slowly expands, it may become more verrucous/tumoral and may lead to disability. On the other hand, it may remain localized and behave indolently.

Referring Provider's Follow Up

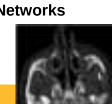
Your explanation is understandable, and certainly fits the setting. I've never heard of chromoblastomycosis (blastomycosis, yes, but not chromoblastomycosis). I'll remember that now when I take Board recertification in 2 years.

I don't have any oral anti-fungals in our supplies, have topical. I can at least advise her what the cause is when I return to her village in 3 days for anothe medical outreach.

Program Summary

- Other Specialties "as requested"
  - Allergy
  - Endocrinology
  - ENT
  - Flight Medicine
  - Gastroenterology
  - General Surgery
  - Hematology
  - Legal
  - Neurosurgery
  - OB-GYN
  - Oncology
  - Pharmacy
  - Plastic Surgery
  - Psychiatry
  - Radiology
  - Speech Pathology
  - Vascular Surgery
  - Vaccine Centers Networks
- Contact Project Manager for assistance: chuck.lappan@us.army.mil

Chronic Sinusitis



Guidelines and Standards

- American Telemedicine Association
  - Standards and Practice Guidelines
- CMS
  - 3/2011 rule effective 7/5/2011 re credentialing of providers
  - Title 42 Fed. Code Reg. Section 482.12
    - Hospital providing telemedicine must meet and verify credentialing and privileging has been performed
    - Allows receiving hospital to grant privileges based on staff recommendations and that rely on info provided by transmitting hospital
- California All Facilities Letter 11-33, 8/3/2011
  - Must follow California law re written into medical staff by laws
- Policies at hospitals

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ATA Standards and Guidelines

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Future: Where is this going

- It's already here – local HC systems purchasing
- Range of provider and patient options
- Scalable
- One step closer to real time
- Add on to secure messaging
- Anytime, anywhere, any place
- Global community is catchment area
- Those who do it best first will take market share
- Need for national and international licensure

Harvard Business Review Jan-Feb 2010

- #2 of Ten Breakthrough Ideas for 2010
- The Technology Than Can Revolutionize HealthCare

  "When the day comes that physicians and patients readily engage in all three types of virtual interaction – asynchronous (such as e – mail), synchronous but remote (such as videoconferencing) and device intermediated (such as kiosk collection of vital signs) – up to three fifths of today's office visits can be eliminated."
- Remember the Duke quote

Musings about the future

- "640K ought to be enough for anybody."

  Bill Gates, 1981
- "Heavier-than-air flying machines are impossible."

  Lord Kelvin, president, Royal Society, 1895
- "Who the hell wants to hear actors talk?"

  H.M. Warner, Warner Brothers, 1927

"This 'telephone' has too many shortcomings to be seriously considered as a means of communication. The device is inherently of no value to us."
Western Union internal memo, 1876.

Q & A

- Thank you

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