Healthcare Social Media (#hcsm) Supports Our Mission

Jasmine R Marcelin MD FACP
Co-Director Digital Innovation & Social Media Strategy
Assistant Professor, Division of Infectious Diseases

GP IDeACTR #CTR seminar: 1.9.2020
I have none
Objectives

✓ Describe examples of social media use for education

✓ Identify examples of innovative social media use for healthcare research

✓ Recognize use of social media to directly impact patient care
UNMC & Nebraska Medicine Mission

“Our mission is to lead the world in transforming lives to create a healthy future for all individuals and communities through premier educational programs, innovative research and extraordinary patient care.”
Digital Media in healthcare
Evolution of the Electronic Medical Record

1968
Problem-Oriented Medical Records
Developed by Dr. Lawrence Weed

The goal of the POMR was to take the stream-of-consciousness-style record keeping and turn it into an effective way for clinicians to understand a more complete and accurate picture of their patient's health and treatment needs. While effective, this framework meant that clinicians were spending too much time creating progress notes which made the process very lengthy.

1972
The Dawn of the EHR System

The first EHR system is created by The Regenstrief Institute in Indianapolis & Clement McDonald, a medical doctor. Together, they wanted to create a system that would solve database design issues & allow clinicians to more easily link healthcare organizations, as well as healthcare providers in other disciplines, so everyone could access the same records through one central system. Despite partnering with Purdue University to write entirely new code, the first EHR system was prohibitively expensive and was not adopted by many clinicians due to its steep cost.

Early 1990s
The Internet's Effects on EHR

"The Computer-Based Patient Record: An Essential Technology for Health Care" is written by Richard S. Dick, Elaine B. Steen and Don E. Datmar under the direction of the Governing Board of the National Research Council. Published in 1993, this book shook the industry out of complacency and helped drive the adoption of EHRs by breaking down the challenges associated with the technology. Thanks to improvements in tech, greater processing power could be completed in much smaller packages, making EHRs much more affordable.

1996
The Health Insurance Portability and Accountability Act (HIPAA) is Introduced

In response to a surge in electronic medical information, HIPAA was introduced to protect patients and their medical data. Prior to the introduction of HIPAA, EHR systems did not have any standards they needed to conform to. While this change in policy led vendors to scramble for compliance, it also helped create a structural foundation for the next wave of EHR evolution.

Source: A History of EHR Through the Years- https://www.icanotes.com/2019/04/16/a-history-of-ehr-through-the-years/#Timeline%20of%20EHR%20History
Evolution of the Electronic Medical Record

**The 2000s**

**EHR Standardization & Adaptation**

The 2000s saw a new generation of EHRs built around the security requirements that are still in place today. Physical, technical and administrative safeguards began to appear in all new EHR products, including protections for automatic data backups, automatic log-offs, data encryption, audit trails, and access controls. Creators of systems became more interested in achieving standardization and courted the leading health organizations of the time, such as Health Level 7 International. During this time, the leaders of the EHR industry began moving toward integrated and centralized systems, in which all of a patient’s data could be accessed through a single system rather than cycling through pages from disparate systems.

**2009**

**The Health Information Technology for Economic and Clinical Health (HITECH) Act is Enacted**

This legislation tightened HIPAA restrictions and improved their enforcement to ensure patient data was kept private and secure. As a result, all best-in-class EHRs worked harder to make security compliance easy. Encryption, access controls with individual authentication and audit trail features were strengthened to make it simple for even a small practice to remain compliant without sacrificing time and resources.

**Current EHR Systems**

Thanks, in part, to further legislation such as Meaningful Use and the Merit-Based Incentive Payment System (MIPS), EHRs have become nearly ubiquitous throughout medical and behavioral health settings — so much so that in 2016, the adoption rate for hospital clinics reached 92 percent. Practices that adopt EHR systems enjoy a variety of benefits that apply to both patient and practitioner such as greater continuity of care, improved efficiency and better emergency preparedness & response. EHRs are also developing functions outside of charting to include helpful practice management tools such as secure messaging systems, payment and billing integrations and automated appointment reminders, which help reduce no-shows & eliminate wasted time filling out paperwork.

**Future EHRs**

**Imagining the Future of EHRs**

With the rise of telemedicine, new legislation being introduced to allow for greater interoperability and big technology companies like Apple, Google and Amazon introducing ways for patients to access their health information and medical records from their smartphones, EHRs are likely to see improvements in the remote delivery of care by integrating with consumer technologies. Additionally, machine learning and artificial intelligence technologies may even make it possible to develop predictive models that can help avert negative outcomes in real-time or provide greater insight so health-related issues can be diagnosed and treated faster and more accurately.

Source: A History of EHR Through the Years- https://www.icanotes.com/2019/04/16/a-history-of-ehr-through-the-years/#Timeline%20of%20EHR%20History
“MyChart”

Source: AAMC
Chatbots
Ten threats to global health in 2019

- Air pollution & climate change
- Non-communicable diseases
- Global influenza pandemic
- Fragile & vulnerable settings
- Antimicrobial resistance
- Ebola & other high-threat pathogens
- Weak primary health care
- Vaccine hesitancy
- Dengue
- HIV

World Health Organization
https://www.who.int/emergencies/ten-threats-to-global-health-in-2019
#hcsm for patient care & patient education

- Building communities for patients
- Helping patients access better care
- Helping clinicians provide better care
What are patients looking for?
• Community
• Answers
• Validation
81 lumbar discectomy videos for review (2,722,964 views)

Variable content

- Good quality (16)
- Average quality (25)
- Poor quality (40)

Using YouTube?

- Inspire with stories
- Educate with common terms
- Consider attention spans
- Use strong visuals
- Make videos accessible

YouTube has over 3 billion monthly active users. If YouTube was a country it will be the 3rd most populated in the world behind China & India.

- 80% of YouTube’s views are outside the US
- On average, a user spends 40 minutes on YouTube on their mobile device per day.
- 4 million YouTube videos are viewed per day
- 6 billion hours of videos watched on YouTube every month
- 300 new hours of video are uploaded to YouTube every minute
- YouTube reaches more 18-49 year-olds than any cable network in the US
- Videos are shared 2x more in Facebook than text or image-based content
- 40% of YouTube views come from mobile devices

https://hcsmmonitor.com/tag/patient-education/
Can I feel better without antibiotics?

Respiratory viruses usually go away in a week or two without treatment. To stay healthy and keep others healthy, you can:

- Clean Hands
- Cover Coughs
- Stay Home When Sick
- Get Recommended Vaccines

To learn more about antibiotic prescribing and use, visit [www.cdc.gov/antibiotic-use](http://www.cdc.gov/antibiotic-use).
Facebook Live Interviews:
Timely, brief, patient-directed questions
Be relatable: vary the topics
Topic 2
As a patient, what do you wish your doctors knew (and did) about the patient experience of being hospitalized?
12/9/19 JHM chat

https://twitter.com/hashtag/JHMChat?src=hashtag_click
Raise Awareness

- September = National Cholesterol Education Month (NCEM)
- Familial Hypercholesterolemia (FH) tweets increased by 153% in September vs. August, then decreased by 59% in October
- Highest number of tweets on the recognized awareness day
- Can you use awareness days to help boost discussion of your campaigns?

Use of Twitter to Promote Awareness of Familial Hypercholesterolemia
Hana Bangash, MBBS, Fiza Khan, BSc, Baosheng He, PhD, Makala Arce, BA, Iftikhar J. Kullo, MD
Protecting Science on #SoMe: Misinformation countermeasures

Provenance  Engagement  Transparency

Narrative  Reputation  Connection

Ever asked a colleague how they would approach a challenging case?

https://cure.ncats.io/#/explore
Hi Jasmine,

following is the list of updates in Cure ID since 12-13-2019:

1. New discussion started:

**Elevated Absolute Cd8 In Well Controlled Hiv Positive**

Already consulted with San Francisco Clinical Consultation Service, and they had no concerns. Pt is a 55 y/o African American Male well controlled on ART (Rx Genvoya) for his HIV Infection. No acute infections but his CD8 absolute is ~4x upper limit of normal. CD4 counts have always been within normal ranges, and HIV Viral Load remains undetectable.

12/03/19: CD4 1069, CD8 3623 (II), CD4/CD8 ratio: 0.30
05/29/19: CD4 714, CD8 1890, CD4/CD8 ratio: 0.38
02/25/19: CD4 778, CD8 2318, CD4/CD8 ratio: 0.34
02/27/18: CD4 675, CD8 2109, CD4/CD8 ratio: 0.32
01/12/17: CD4 730, CD8 2481, CD4/CD8 ratio: 0.29
05/06/14: CD4 608, CD8 1885, CD4/CD8 ratio: 0.32

Anyone aware of immunologic/HIV researchers who could comment on the significance of this very elevated CD8 cell count?

Thanks!

https://cure.ncats.io/#/explore
#hcsm for medical education

- Innovative
- Brief
- Accessible

Doctors go to TikTok to talk to teens about vaping, birth control and how celery juice won't cure cancer
Reach learners where they want to learn
How Twitter is changing medical research

From online journal clubs to ‘tweetorials’ to conference updates, social media is changing the dissemination and discussion of biomedicine.

Use #hcsm to talk to the public about your trial
How can you use #hcsm in clinical trials?

- Get on Board: Sign up your research group for #hcsm
- Treat Patients as Partners & actively engage them
- Engage Health Care Providers
- Ensure trial recruiting includes underrepresented populations
- Use social media tips for communication

Strategic Dissemination of published clinical research

Twitter Chats can be helpful:
• Build momentum
• Engage influencers
• Keep the discussion going

<table>
<thead>
<tr>
<th>Platform</th>
<th>0-30 days after publication</th>
<th>31-60 days after publication</th>
<th>Total</th>
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<tbody>
<tr>
<td></td>
<td>SoMe group, (n = 34)</td>
<td>NoSoMe group, (n = 34)</td>
<td>P value*</td>
</tr>
<tr>
<td><strong>Twitter</strong></td>
<td>Median (25th; 75th percentile)</td>
<td>90 (64; 138)</td>
<td>1 (0; 14)</td>
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<td></td>
<td>Fewest; most visits for an individual article</td>
<td>0; 1,076</td>
<td>0; 333</td>
</tr>
<tr>
<td><strong>Facebook</strong></td>
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<td>526 (274; 1,194)</td>
<td>2.5 (1; 6)</td>
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<td>Fewest; most visits for an individual article</td>
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<td>0; 1,445</td>
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<td><strong>LinkedIn</strong></td>
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<td>31.5 (12; 54)</td>
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<td>Fewest; most visits for an individual article</td>
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<td>0; 80</td>
</tr>
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</table>

**Total**

- Median (25th; 75th percentile)
- Fewest; most visits for an individual article

**Abbreviations:** RCT indicates randomized control trial; SoMe, articles promoted via social media; NoSoMe, articles not promoted via social media.

*P* value from rank-sum test comparing number of visits for the SoMe group versus the NoSoMe group.

*Signed rank test *P* ≤ .001 for within-group comparison of the number of visits for the month of publication versus the month following publication.

*Signed rank test *P* = .02 for within-group comparison of the number of visits for the month of publication versus the month following publication.

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**Promote across multiple platforms**

- Number of Article Views With Social Media Promotion in the Month of Publication and the Month Following Publication for 68 Articles in an RCT on the Effect of Promotion via Social Media on Access of Articles, 2015

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Widmer, R. Jay et. Al. Effect of Promotion via Social Media on Access of Articles in an Academic Medical Journal: A Randomized Controlled Trial. Academic Medicine: October 2019
Tweet the meeting

- Engage with conference attendees
- Engage with others not attending the conference
- Engage with conference presenters

@DrJRMarcelin
Advocating for equity in healthcare using #hcsrm impacts patient care
#hcsm and advocacy

#ThisIsOurLane

#VACCINES WORK
Discover how vaccines keep the world safe

GO TO THE EXPERIENCE

@DrJRMarcelin
When social media and science do not mix

Eliminating genetic diseases and deadly infections, or eugenics dating app?

Misleading Content on Social Media

AdventHealth resident in hot water for social media posts, side-gig

#hcsm influencers
Back to the Mission: Healthcare Social Media #hcsm supports

Research

Education

Patient Care

@DrJRMarcelin
How is the GP IDeA CTR Network using #hcsm?
Using #hcsm for education here on campus: UNMC ID Blog
UNMC using YouTube for Patient Education
#hcsms Summary

Just jump in  Be authentic  Focus on engaging others  Use bright, catchy media  Be innovative  Try different platforms  Be careful about pitfalls
Reach out to keep the discussion going...

Jasmine R Marcelin, MD FACP
jasmine.marcelin@unmc.edu
Twitter: @DrJRMarcelin