TITLE: Social Media in Pathology
PRESENTER: Imran Uraizee, MD

Slide 1:
Hello, my name is Imran Uraizee. I am chief resident in Anatomic and Clinical Pathology at the University of Chicago Medical Center. Welcome to this Pearl of Laboratory Medicine on Social Media in Pathology.

Slide 2:
What exactly is social media? In the broadest sense, social media refers to digital platforms and websites that allow users to interact within an online community by sharing content. This content can take a variety of forms including images, links, and text depending on the specific platform. Importantly, the content is directed entirely by the users and can be posted and made available instantly. In this way, social media allows for conversations and interactions remotely across any distance. The online interface also allows users to engage posted content based on the convenience of their own personal schedules. An important goal to keep in mind with social media is that it is most effective when used to enrich and enhance real-life interactions rather than replace them.

Slide 3:
There are a number of social media applications currently available, and I'll briefly introduce three of the more mainstream platforms: Twitter, Facebook, and Instagram, all of which are free to join.

Twitter allows users to post content into 280-character posts called “tweets.” A single tweet can include up to four images, a link to a webpage, or a short video clip and be indexed into searchable categories by using “hashtags”. Users can see content from people they have chosen to follow on a main feed that includes original tweets as well as content reposted by those accounts, known as “retweets”. Twitter’s ability to package content in smaller bits, coupled with its rather open forum, capacity to rapidly disseminate information, and ease of use on
mobile devices, have made it one of the more popular social media platforms among pathologists.

Facebook arrived on the scene a couple years before Twitter as a social networking platform for college students, later extended to the general public. Unlike tweets, Facebook posts can be lengthier, and allow for the sharing of multiple photos, videos, and links at a single time. In the medical community, Facebook has made its mark more as a means by which users can stay connected with colleagues after face-to-face interactions at conferences. There are also a number of Facebook groups and pages geared towards particular anatomic and clinical pathology subspecialty interests.

Instagram is unique in that content must be shared in the form of an image, photograph, or short video with room for short captions and comments, which can be browsed like the Facebook and Twitter interfaces. Users can also curate shared images and videos into “stories” to chronicle events over the preceding 24 hours.

We’ll now examine some of the applications of social media in pathology through examples from Twitter.

**Slide 4:**
Here is a tweet that I published to share an example of the Azzopardi phenomenon. At the top of the tweet is my profile photo, name, and Twitter “handle” or identifier, designated by the “@” symbol followed by a unique user name that I chose when I created my account and profile, in this case “IUraizee3MD”. Clicking a user handle will take you to the user’s profile page. A Twitter handle can also be typed into the text of a tweet to “tag” a user if you really want him or her to see your tweet.

Following the text of this tweet are three keywords or “hashtags”, which are preceded by the “#” symbol. These “hashtags” place the tweet into categories that allow users to easily follow topics in which they are interested. For example, if you are interested in learning about surgical pathology and searched “#surgpath”, this tweet would be indexed in the results along with other tweets containing that hashtag. Thus, thoughtful use of hashtags can allow content to be more visible to others and also make it easier to find content in which you are interested.

**Slide 5:**
Here are some examples of commonly used hashtags in laboratory medicine. If you want to learn more about laboratory medicine, you can search #LabMed. Are you looking for articles related to clinical pathology? Use #ClinPath. Trainees learning their pathogens and parasites might try #PathBugs or #MicroRounds to see what microbiologists in other parts of the world have encountered on laboratory rounds. Searching #Blooducation will index tweets related to
blood banking, transfusion medicine, and immunohematology. Browsing #PathTwitter is a good starting point for finding tweets related to general pathology and education.

**Slide 6:**

One of the best examples of how Twitter can serve as a catalyst for the rapid spread of information and enhanced networking opportunities is its real-time use at professional medical conferences, otherwise known as “live tweeting.” Prior to the United States and Canadian Academy of Pathology annual meeting in 2015, Dr. Jerad Gardner, tweeted an invitation to the Pathology Twitter community to form a group, later called the #InSituPathologists, to live-tweet lectures and events from the conference using #USCAP2015. A total of 24 members came together including 11 academic pathologists, three private practice pathologists, eight pathology trainees, one medical student, one patient, and one patient advocate. Over the duration of the conference, 6,524 unique tweets were posted by 662 users using the conference hashtag, with a little more than a third by the live-tweet group alone. Over 5.8 million impressions, or possible tweet views, were generated. Even up to a year and a half after the conference, the conference hashtag was used in over 900 original tweets and generated over half a million potential tweet views, highlighting the power of social media to facilitate discussions from an academic meeting even well after its conclusion.

**Slide 7:**

The live-tweet group was surveyed after the meeting and reported a more interactive and engaging conference experience. In particular, the exercise of distilling lectures into key take-home points was noted to be a valuable learning experience. The group members cited the ability to reach a worldwide audience, including a number of pathologists and trainees unable to physically attend the meeting, as another major advantage along with being able to follow multiple sessions occurring at the same time. The experience led to a number of in-person meetings and networking with fellow “tweeters” and followers, often denoted with a specific hashtag for “met on Twitter then in real life.”

**Slide 8:**

A recent publication by Lepe et al. published in the *Archives of Pathology and Laboratory Medicine* highlights the remarkable capacity of social media to spur research collaboration. The study, inspired by a tweet regarding a case report showing displaced cartilage within a previously-biopsied mediastinal lymph node, recruited 24 pathologists from 14 institutions in five countries to study biopsy-site changes in mediastinal lymph nodes following endoscopic ultrasound-guided transbronchial needle aspiration. After a tweet was issued inviting pathologists to participate in the validation study, the assembled group used #EBUSTwitter and Twitter’s direct messaging feature to coordinate case collection. Most of the study’s collaborators had never even met in person but were able to design, perform, present, and publish the study within a year of conceiving the idea.
Slide 9:
In addition to allowing users to search indexed content of interest to them, social media’s ability to “push” information to users is revolutionizing how physicians keep up with the ever-expanding body of literature and new trends. Rather than visiting a multitude of different websites to find, download, and read articles, social media users are able to follow specific medical societies, institutions, and journals of interest to them and have content and links posted by these sources automatically curated and delivered, or “pushed”, to them instantly.

Slide 10:
Professional advocacy efforts have also been aided by the social media revolution as demonstrated by this tweet from the American Association of Clinical Chemistry informing followers of a congressional briefing on point-of-care testing. State medical societies and other pathologist advocacy organizations, including the College of American Pathologists, are using social media to mobilize advocacy efforts and keep membership informed of emerging issues.

Slide 11:
It is also important to understand some of the potential pitfalls of professional social media use, most of which can be easily alleviated by exercising the same degree of respect and discretion expected in face-to-face interactions. While formal peer review processes ensure the accuracy of content in published journals, social media posts undergo their own type of review by users in a “crowdsourced” fashion. Published posts are instantly available to other users, can be easily screenshot or recorded, and thus can be very difficult, if not impossible, to retract even after deletion. Thus, it is best to use the “pause before posting” approach in which you deliberately review every post and avoid posting content on impulse. Along these lines, it is also best to steer clear of heated personal discussions and debates in the public forum. Remember that public accounts can also be screened by potential employers. As much as a well-maintained, professional social media presence can be a major advantage in a job search, posting of inappropriate or unprofessional content can be equally detrimental.

Slide 12:
One of the biggest concerns surrounding professional social media use in pathology is maintaining patient privacy. De-identified images posted to social media are subject to the same ethical guidelines and privacy rules as stipulated for peer-reviewed medical journal articles by the Health Insurance Portability and Accountability Act of 1996, or HIPAA. That is, specific patient identifiers defined as protected health information, including name, age, and medical record number, should be omitted from text and images. Histologic images alone are not considered patient identifiers. Despite these rules, there are ways in which patients could inadvertently be identified by certain details. In an article in the AMA Journal of Ethics, Drs. Crane and Gardner suggest altering patient details can alleviate privacy concerns without compromising educational value, such as never using specific dates, delayed posting about
highly unusual cases, avoiding mention of specific geographic regions, using approximate ages or age ranges, and omitting accession numbers.

**Slide 13:**
Now that we have reviewed some of the basics of professional social media use in the pathology community, its major advantages, and strategies to mitigate potential pitfalls, how can you get started on Twitter? Dr. Sanjay Mukhopadhyay from the Cleveland Clinic provides an excellent overview and orientation to the pathology Twitter community in a series of tweets geared as a tutorial, known in the Twitter world as a “tweetorial”. Additionally, Dr. Gardner's “Social Media Guide for Pathologists” is a comprehensive webpage with useful tips, including basic steps to open an account and suggestions to get started, links to articles and videos about professional social media use, and answers to frequently asked questions. Links to both resources are provided in the list of references on the following slide.

**Slide 14: References**

**Slide 15: Disclosures**

**Slide 16: Thank You from www.TraineeCouncil.org**

Thank you for listening to this Pearl of Laboratory Medicine on “Social Media and Pathology.”