

Disseminating Education about HER2-Low Breast Cancer through Twitter Chats and Tweetorials

Kim, Joseph¹; Akhtar, Israh²; Baskota, Swikrity³; Bui, Marilyn⁴; Chivukula, Mamatha⁵; Feldman, Michael⁶; Krystel-Whittemore, Melissa⁷; Khoury, Thaer⁸; O'Regan, Ruth⁹; Wei, Shi¹⁰; Beumer, Kellie¹¹; Kelly, Melissa¹¹



¹Q Synthesis LLC, Newtown, Pennsylvania; ²Temple University, Philadelphia, Pennsylvania; ³Columbia University, New York, New York; ⁴Moffitt Cancer Center, Tampa, Florida; ⁵Sutter Health, Burlingame, California; ⁶Indiana University School of Medicine, Indianapolis, Indiana; ⁷NYU Langone Health; ⁸Roswell Park Comprehensive Cancer Center, Buffalo, New York; ⁹University of Rochester Medical Center, Rochester, New York; ¹⁰University of Kansas Medical Center, Kansas City, Kansas; ¹¹American Society for Clinical Pathology, Chicago, Illinois

BACKGROUND

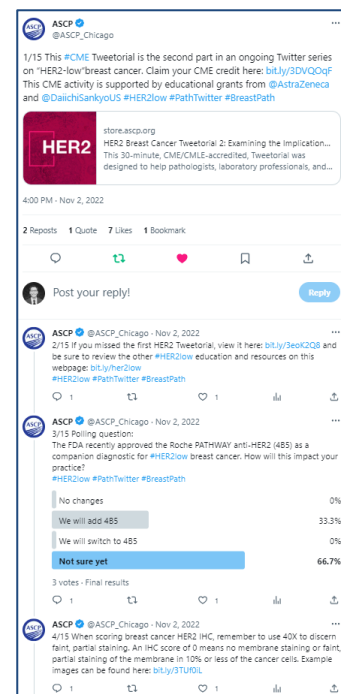
Social media is often used to disseminate new information and as a teaching tool that reaches a broad audience. When practice-changing data about “HER2-Low” metastatic breast cancer (MBC) emerged in 2022, ASCP developed CME/CMLE Twitter chats and Tweetorials to educate pathologists and laboratory professionals about how these updates will impact the diagnosis and care of patients with HER2-Low MBC. These continuing education activities were funded by educational grants from AstraZeneca and Daiichi Sankyo, Inc.

- Fast Facts about Twitter**
- Twitter was created in 2006 and went public in 2023.
 - By 2019, Twitter had more than 330 million monthly active users.
 - In 2022, Elon Musk purchased Twitter.
 - In 2023, Twitter became a part of X Corp and the logo changed from a blue bird to a black X.

METHODS

Working with faculty who were active on Twitter, ASCP organized Twitter chats and Tweetorials to increase awareness about HER2-Low MBC and address how these changes will impact clinical care.

- A Twitter chat is a live, interactive Tweet-based discussion held on Twitter. Also called Tweet chats, these events run for 1 hr and use hashtags to keep the discussion organized.
- A Tweetorial is a combination of threaded Tweets that teach about a specific topic. Activities were certified for continuing education credit and were designed to be short, practical, and relevant for pathologists and laboratory professionals.



Tweetorial

SUMMARY

- Twitter can be an effective platform for social learning
- Hashtags are used to organize content and build communities around certain topics
- As Tweets get amplified by others Retweeting or “Liking” Tweets, medical education content may reach a broad audience rapidly
- Pathologists are active on Twitter and often use hashtags like #PathTwitter or #MedTwitter

ACKNOWLEDGMENTS

The Twitter Chats and Tweetorials were a part of a larger education initiative led by ASCP and Q Synthesis LLC. This program was called “Guiding Change in Pathology in HER2 Testing and the Emerging and Evolving Landscape of HER2-low Breast Cancer” and was supported by educational grants from AstraZeneca and Daiichi Sankyo, Inc.

REFERENCES

- Goldowsky A, Bilal M, Kickel A, Charabaty A. Structured Medical Education Handles on Twitter: A How-to Guide. *Gastroenterology*. 2023;164(1):9-13.
- Melvin L, Chan T. Using Twitter in Clinical Education and Practice. *J Grad Med Educ*. 2014;6(3):581-582.
- Modi S, Saura C, Yamashita T, et al. Trastuzumab Deruxtecan in Previously Treated HER2-Positive Breast Cancer. *N Engl J Med*. 2020 Feb 13;382(7):610-621.
- Thamman R, Gulati M, Narang A, Utengen A, Mamas MA, Bhatt DL. Twitter-based learning for continuing medical education?. *Eur Heart J*. 2020;41(46):4376-4379.
- Zheng B, Beck Dallaghan G. A Twitter-facilitated professional learning community: online participation, connectedness, and satisfaction. *BMC Med Educ*. 2022;22(1):577.

RESULTS

In 2022 and 2023, ASCP used the hashtag #HER2Low to organize Twitter chats and Tweetorials. Each chat had four faculty members responding to 6-8 questions and averaged 2.2 million impressions (an impression is the # of times a Tweet is served in a timeline or search result).

Faculty covered the following topics:

- The definition of so-called “HER2-Low” based on the DESTINY-Breast04 trial
- Challenges differentiating an IHC score of 0 vs 1+
- The emerging use of digital pathology to score HER2
- Ways to improve HER2 reporting
- Other challenges with IHC scoring (eg, artifacts, unusual staining patterns, etc.)

Tweets may be amplified by Retweets (a re-posting of a Tweet), so a Tweet sent by a faculty member often reached over 1,000 views. Tweetorials had polling questions, text, images, videos, and links to journal articles. Each Tweetorial achieved over 1,400 views and over 535,000 impressions during its first week. Collectively, the Twitter Chats and Tweetorials led to over 1,050 CME/CMLE certificates.

CONCLUSIONS

Twitter is an evolving platform that is actively used by pathologists and laboratory professionals to share knowledge to a broad audience and foster a community of learning. Since content posted on Twitter remains enduring and searchable, people may find old Tweets and see which topics achieved high impressions. When spreading education on new practice-changing topics like HER2-Low breast cancer, Twitter can be an effective platform for broad content dissemination.