

EDITOR'S PAGE



Social Media

Can It Reduce Heart Failure Events?

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The Internet is rapidly becoming the foundation for a smarter planet. In the past few years, we have seen an exponential increase in unique data compared with what had been generated in the preceding 5,000 years. Every 2 days we create as much information as we did from the dawn of civilization. The amount of new data is now doubling every 6 to 12 months and soon will double every 12 h. For college students with technical degrees, one-half of what they learn in their first year of study will be outdated by their third year. Compounding this revolution of big data is social media, which has enhanced our ability to become informed as a society and to potentially improve the health of the citizens for whom we care. The most common forums of social media are Facebook and Twitter. In the fourth quarter of 2015, Facebook had 1.59 billion monthly active users, and Twitter averaged 305 million monthly active users.

At this time we ask ourselves: How can social media improve the health of heart failure patients? There are several opportunities for the use of social media:

1. Patient engagement and consumerism
2. Provider education and dissemination of knowledge
3. Improvement of processes and care
4. Patient surveillance and monitoring

1. PATIENT ENGAGEMENT AND CONSUMERISM

The dissemination of knowledge and information through social media can enhance the ability to improve the care of our patients. Disseminating information through this mechanism not only allows rapid and broad reach of information, as demonstrated by the number of people on Facebook, but also lends the opportunity to frame the discussion by

endorsing evidence-based guidelines and providing online consultation, health coaching mechanisms, and opportunities to enhance behavioral interventions, medication compliance, and surveillance. All of these opportunities would provide us with a tremendous ability to improve the health literacy of our patients and enhance our ability to prevent heart failure progression and decompensation.

2. PROVIDER EDUCATION AND DISSEMINATION OF KNOWLEDGE

This is perhaps the biggest opportunity for us to change the care of our patients. Within social media, there has been evidence that published scientific papers have enhanced readership, especially when accompanied by citations within postings on Facebook and Twitter. Social media has brought increased awareness to our providers about specific disease conditions and treatments through the acknowledgment of celebrity illnesses. The publicly acknowledged care and treatment of former Vice President Dick Cheney, who was treated with advanced heart failure therapies including a left ventricular assist device and cardiac transplantation, generated significant traffic on social media. The social awareness stimulated important dialogue in the provider community about the need for early detection of worsening heart failure; the role of left ventricular assist devices in stabilizing decompensation; and the complexities of organ transplantation, and waiting lists. The spread of scientific information was analyzed by Allen et al. (1) in the paper titled "Social Media Release Increases Dissemination of Original Articles in the Clinical Pain Sciences," which states that there is an immediate decline in interest of scientific information in the first 3 months of publication that stabilizes and has another less significant decline over the next 12 to 13 months. When social

media accompanies the release of a scientific paper, this can significantly increase the number of times the paper is downloaded by providers and increases the citation rate (1). Although randomized trials have not been able to demonstrate an increase in the 30-day view rates in the overall population, cardiovascular publications indicate that an important relationship was observed between readership of basic translation of papers and the advantage of social media. Thus, it appears that there is a signal for improvement of provider education and dissemination of knowledge within social media that is immediate, is impactful, and could potentially influence patient outcomes (2).

3. IMPROVEMENT OF PROCESSES AND CARE

It is clear that social media has been used and can be utilized to a fuller extent in the care of our heart failure patients. Social media is currently used in reminders for adherence to medications, clinic visits, and addressing early contact following a recent decompensation for symptoms. Social media can also be used to identify and quantitate trends in measurement of large quantities of data from invasive hemodynamics, data recorded from implantable devices, and use of serial noninvasive and biological marker measurements to predict risk and potential trajectory of heart

failure events. This capacity perhaps holds the greatest promise of the use of social media.

4. PATIENT SURVEILLANCE

One of the priorities of the Food and Drug Administration commissioner is an increased mandate to provide better safety surveillance of approved medication and devices. Through social media, it is likely that we will be able to monitor and augment safety surveillance of patient data to better provide information for device failures, rare medication side effects, and food toxicities. Not only will these data advance knowledge in the spectrum of therapeutics that we use and practice with, but most importantly, it will promote greater safety for the patients we serve.

I am encouraged by the opportunities that social media presents to reduce heart failure events. I hope you will follow our social media on Facebook (JACC Journals) and Twitter (@JACCJournals) to see our comments on important papers in the *Journal*. Let us develop the evidence!

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