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Social Media and the Surgeon: Seven Simple Rules for Success

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Insights

- Social media has permeated every aspect of life and it has been no different for medicine.
- Social media is now used for education and training, networking, patient engagement, and research in medicine.
- While there are many benefits of using social media in medicine, there are also many risks such as breach of confidentiality and unprofessional behaviour online.
- Surgeons should strive to use social media in a responsible manner to harness the power of this platform and transform their clinical practice.
- There are several guidance documents that surgeons can consult to use social media in an ethical and professional manner.
- Our acronym **S.U.C.C.E.S.S.** provides seven simple rules surgeons can follow to navigate and use social media like a pro.

> "Different social media surgical applications are already widely available but limited in use in the trainee's curriculum. E-learning modalities, podcasts, live surgery platforms and microblogs are used for teaching purposes. Social media enables global research collaboratives and can play a role in patient recruitment for clinical trials. The growing importance of networking is emphasized by the increased use of LinkedIn, Facebook, Sermo and other networking platforms
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> **-Shah & Shah, 2020 (1)**

"The use of "visual abstracts" associated with article tweets by a surgical journal led to higher levels of article dissemination. Twitter journal clubs and specialty-specific Facebook groups have demonstrated opportunities for professional education and collaboration among surgeons."

Wagner et al (2018) (2)

"Plastic surgeons have led the way [of social media use] in this regard, given the consumer-driven nature of the surgical services offered."

"Given the current cultural climate and the expectations of the public, almost 60 percent of surveyed plastic surgeons felt that social media engagement is inevitable and beneficial for the maintenance of a successful practice."

Bennet et al (2018) (3)

First Things First: What Does Social Media Include?

Before we delve into our discussion about social media and appreciate its true potential to transform the practice of medicine, it is important to review some relevant concepts. Social media provides a platform for people to interact and communicate with each other by allowing them to create, share, and exchange content virtually. While we commonly associate social media with few popular platforms, (e.g. Facebook, Twitter, LinkedIn, Instagram), it can come in many forms while preserving the main purpose of connecting people (Exhibit 1).

Exhibit 1: Different Types of Social Media

Type of Social Media	Description	Example
Social networks	Used to connect and exchange thoughts, ideas, and content with other users, who often have similar interests	Facebook, Twitter, LinkedIn
Media networks	Used to distribute media content (e.g. photographs and videos) to diverse audience with diverse interests	YouTube, Instagram
Discussion networks	Used to facilitate in depth discussion	Reddit, blogging sites such as WordPress
Review networks	Used to review products and services; both businesses and users can interact with each other	Yelp, TripAdvisor

Descriptions adapted from "What Is Social Media", retrieved from https://www.thebalancesmb.com/what-is-social-media-2890301

The Power of Social Media: Defining the Future of Surgery

Within the last decade, social media has permeated every aspect of our lives. Increasingly, social media is used for knowledge dissemination and engagement purposes in healthcare. Patients are now increasingly turning to the internet for answers, which presents a strong impetus to ensure the reliability of the information that is available online. There is also a growing need for alternative means for clinicians to interact and learn from each other when there are fewer opportunities to meet in person for knowledge exchange. While this has always been a challenge in busy clinical settings where experts in a particular field may be located all over the world, this is more relevant than ever given the COVID-19 pandemic and strict social distancing measures. Social media presents an effective platform to mobilize and expedite different aspects of research, thus increasing chances of impact achieved through scholarly work. Clinicians can also use social media to interact with patients in ways they have never done before, which is likely going to be a lasting trend to stay for the future. Despite the many advantages of integrating social media in healthcare, there are still many challenges associated with its use, and the field of surgery is not immune to these challenges. Just as every other field of medicine, social media can help transform the field of surgery if this platform is used with a high level of ethics and integrity. Surgeons have already used social media in many innovative ways and have demonstrated many proven benefits from its use. With greater guidance and regulation, surgeons will be better positioned to continue using social media in diverse ways to progress their profession like never before.

"Surgeons are no different than the general population in adopting new technologies such as social media for their personal use. An American College of Surgeons survey showed that 55% of respondents used Facebook, 48% used LinkedIn, and 82% viewed videos on YouTube for their personal use."

Margolin (2013) (4)

"CDF [Care Deliver Frame, a personal home telehealth system based on social networking] aims to connect older adults with children, family members, and caregivers in a personalized way…a tablet in which the CDF App is installed serves as the core for vital sign measurement data collection and transmission. Vital sign measurement data from various devices, such as blood pressure/glucose meters and weight scales, are transmitted via Bluetooth to the tablet. Under the SSL and HTTPS data transmission security of Facebook, data are encrypted and then posted to the older adult's Facebook timeline by using the one-touch data upload button on the CDF App interface. Facebook has also become the "user interface" of CDF for younger children and family members who are "Facebook friends" of the older adult. Under appropriate Facebook privacy settings, children and family members can be allowed to browse older adult's vital sign measurement data as well as posting caring messages, photos, and videos using the regular Facebook App or Facebook website. The professional caregiver who is a "Facebook friend" of the older adult is allowed to use the "Comm & Care" App installed on the smartphone to retrieve vital sign measurement data stored in Facebook."

Huang & Hsu (2014) (5)

> "There are a growing number of opportunities for physicians to provide patients with credible and evidence-based information by posting on institutional websites and professional blogs and by participating in online patient communities. On Twitter, disease-specific hashtags (a word or phrase preceded by the # sign) facilitate open discussion threads focusing on a particular medical condition, thereby remotely connecting patients and healthcare professionals in real time"
>
> **Wagner et al (2018) (2)**

Benefits of Social Media Use in Surgery: The Sky's the Limit

Social media has opened endless opportunities for education and training in surgery. Given the mobility, convenience, global accessibility, low costs, immediacy, and connection between large populations, social media presents an effective and pragmatic platform for delivering surgical training and teaching (1). YouTube videos, Facebook live streams, and Twitter threads now provide new avenues for learning – residents, fellows, and fully trained surgeons have all reported using these resources on a regular basis for both educational as well as "brush up" purposes (4). Findings of a survey of surgeons from the United States (n= 1037) show that 70% of participants believe social media benefits their professional development (2). There is also evidence indicating that using social media in medical education is associated with improved knowledge, skills, and attitudes among students and residents, with increased opportunities for engagement, feedback, and collaboration (2). Below are few examples of some leading academic surgical departments using social media to enhance the education, professional development, and community for their trainees:

- **McMaster University Department of Surgery Twitter handle: @McMasterSurgery**
- **University of Toronto Department of Surgery Instagram handle: @uoftsurgery**
- **University of California, Davis Department of Surgery YouTube channel**

In recent years, social media has played an important role to bridge the North-South knowledge gap by giving clinicians from low- and middle-income countries (LMICs) access to educational resources they typically do not have access to. However, social media is not only useful for teaching surgical skills to those from LMICs, but they can be also used to expose trainees from high-income countries to international medical concerns, which can contribute meaningfully to problem-based learning. Surgical education disseminated by social media provides a powerful means for capacity building in disadvantaged settings.

Beyond professional knowledge sharing, social media is changing the landscape of everyday healthcare provision, often used in conjunction with other innovative technologies. Telemedicine makes it possible to provide care to patients who are in remote settings or those who live far away from the needed healthcare centers and clinicians. Using different social media avenues such as Facebook in conjunction with remote automated monitoring systems can create highly effective home telehealth systems. There is positive evidence supporting this type of integrated care system for older adults, where family and friends are able to get involved through social media to help coordinate their care (5).

At a broader level, since many patients turn to the internet for answers, there are now growing numbers of physicians who share credible and evidence-based information online through a wide range of social media platforms to inform patients and the general public. These platforms include but are not limited to institutional websites, physicians' personal blogs, LinkedIn, Twitter, and Instagram accounts. The nature of the communication includes both dissemination of information to the general public, as well as online interaction between physicians and patients. Furthermore, hospitals are now harnessing the power of social media to engage with patients and improve care delivery processes. Many hospitals are now increasingly relying on patient reported feedback over social media to improve their institutional operations. This feedback is collected through diverse means such as websites, Facebook pages, and smartphone apps.

Social media can also have a meaningful impact on research. It has been noted that social media provides a powerful platform to generate interest in clinical trials with customized messages to connect patients, caregivers, and families with potential trial enrollment websites (6). Furthermore, social media can be also used to share key findings of research with patients and other stakeholders in an efficient and accessible manner to accelerate knowledge translation efforts.

> “A review of resident and medical school Facebook pages showed alcohol consumption in 10% of posts and implied overindulgence in 50%. Additionally, 30% had overt sexual content and potential patient privacy violations.”
>
> **Margolin (2013) (4)**

"The American Medical Association suggests, "…to maintain appropriate professional boundaries physicians should consider separating personal and professional content online." However, this is not always practical, and physicians should be aware that even with a small number of followers, most online content is public, archived, and searchable."

Wagner et al (2018) (2)

"Breaches of patient confidentiality still occur, and these infractions are not without serious consequences…Photographs and videos capturing sensitive anatomy and operative procedures in a sometimes casual manner render these posts potentially unprofessional and disrespectful, which violates the American Society of Plastic Surgeons Code of Ethics mandate to always use respectful language and images."

"…the use of social media by clinicians may invite significant risk if not used with caution…HIPAA violations still occur, sometimes by the posting of seemingly unidentifiable information. In addition, surgeons' posts might be viewed as specific medical advice if appropriate disclaimers are not provided, leading to potentially litigious consequences. Surgeons may also begin online communication with patients, inadvertently beginning doctor-patient relationships outside the usual clinical encounter…Furthermore, surgeons may assume the ear of a specific audience, but social media posts can reach an infinitely large audience with unanticipated views and beliefs."

Bennet et al (2018) (3)

Risks, Dangers, and Pitfalls of Using Social Media

While there are many benefits of using social media in surgery, there are also a wide range of risks that should be considered before implementing this platform in clinical practice. When social media is used to disseminate information either for health care professionals or the general public, it is not always possible to confirm the credibility of the information presented or whether it went through peer-review (1). Even though health care institutions and providers may feel compelled to maintain an online presence through social media, making sure their published information is up to date or interacting with their patients and the general public in a timely manner can be a challenge (4).

One of the biggest challenges of using social media as a surgeon is determining how to apply principles of professionalism in online communication (4). Although standards of integrity, accountability, and continued pursuit of excellence define the practice of medicine, these standards are not always easy to uphold when using social media (4). The lines between the acceptable grounds of surgeon-patient relationship can be blurred online through activities that are considered unethical in real life. Furthermore, the surgeon-patient encounter can also become a source of entertainment for the public if it is presented under the guise of medical education, yet undermines the fundamental fiduciary duty a surgeon is expected to fulfill for his or her patient (3). Notably, there is the risk of transgressing bounds protecting patient anonymity, especially when the difference between educational and confidential information is not easily discerned.

The anonymity of the internet is particularly dangerous when anyone can simply re-post information shared by surgeons online by taking it out of context, without any knowledge of the initial poster and without any consequences (4). Indeed, any information published online is irrevocable and when done without the best judgement, this can have significant negative implications for surgeons and their patients. Similarly, surgeons can also misinterpret information shared on social media by their patients.

"And there are certainly risks to learning from social media, such as if a new technique starts being utilized without first being properly tested in studies. So managing these social media groups requires dedicated effort and oversight (typically from one or more people in a moderating role) to ensure that discussions are focused, factual, and do not infringe on patients' rights to privacy. However, since this type of role does not fit neatly into existing paradigms or leadership structures in the field of surgery (nor in medicine more broadly), health care leaders will have to determine how to recognize, validate, and reward these learning-oriented efforts. For example, creating a role for managing social media groups similar to the M&M conference chair, which is recognized and respected, could be helpful."

"Social media will never completely replace in-depth, face-to-face interactions as a forum for vicarious learning in the surgical community. However, in an era where the practice of surgery is evolving faster, spreading farther, and involving greater numbers of people, social media provides a scalable tool that can augment in-person learning opportunities. Leaders of hospitals, health systems, surgical societies, and other professional organizations should embrace its potential and work to combat its current limitations. Doing so will go a long way towards furthering surgical education and delivering safer, higher-quality care for patients."

Myers et al (2017) (7)

Promoting and Safeguarding the Use of Social Media

In order to maximize the benefits of social media use in surgery, a profession wide shift in perspectives and rigorous guidelines for ethical use are needed. This can begin by recognizing the value of social media for positively contributing to surgery, not only for professional development, but also for clinical care and future research. Since maintaining an online presence requires time and effort, engaging in and leading social media related activities should count as professional

achievement that facilitates career advancement. In fact, given the current trends in information uptake, it has been noted that scholarly activities done over social media should be valued as a large number of peer-reviewed publications continue to be not read or cited (1). Furthermore, an age-dependent trend in positive attitude for using social media has been found in surgeons younger than 55 years (3). While this highlights the value of promoting social media strategies among younger surgeons given their aptitude for using this platform, it also demonstrates the need for more concerted efforts to familiarize older surgeons with social media.

When sharing any information online, surgeons should always specify the source of the information and clarify instances where they provide their own expert opinion. As for sharing any patient content on social media, surgeons should take a conservative approach, follow appropriate guidelines for professional conduct, ensure they have patient consent, and err on the side of caution at all times (3). Encouragingly, recognizing the lasting and prominent influence social media will continue to have on health care delivery in the years to come, a wide range of guidelines have been issued by professional governing bodies around the world. The common themes emerging from these guidelines include committing to high standards of ethical behaviour, recognizing and responding appropriately to the heightened threats to professionalism online, placing patient well-being and overall public trust in the center of all social media activities. Some of these guidelines include the following:

- **American College of Surgeons Statement on Guidelines for the Ethical Use of Social Media by Surgeons**
- **Best Practices for Surgeons' Social Media Use: Statement of the Resident and Associate Society of the American College of Surgeons**
- **College of Physicians and Surgeons of Ontario Statement on Appropriate Use of Social Media by Physicians**
- **Social Media, Ethics and Professionalism: British Medical Association Guidance**
- **American College of Obstetricians and Gynecologists Committee on Professional Liability. Committee Opinion: Professional Use of Digital and Social Media.**
- **American Medical Association Statement on Professionalism in the Use of Social Media. Murphy DG et al (2014). Engaging responsibly with social media: the BJUI guidelines. BJU Int; 114(1): 9-15. DOI: 10.1111/bju.12788,12617**

Beyond the many resources that are currently available for surgeons looking to use social media as part of their clinical practice, we have developed seven simple rules for **S.U.C.C.E.S.S.**

- **S** Surgeon-patient relationships should be maintained based on the highest levels of ethics.
- **U** Understand the implications of unprofessional behaviour online.
- **C** Communicate in a responsible and timely manner.
- **C** Customize content according to the needs of your audience.
- **E** Educate yourself on an ongoing basis regarding new social media trends.
- **S** Seek advice from others with successful professional engagement online.
- **S** Strategize to incorporate social media in healthcare in creative ways.

Contributors

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