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Direct-to-Consumer Online Prescribing

Opportunities and Risks for Clinical Nurse Specialist Practice

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The "visit" begins with the patient seeking a prescription using a website or smartphone app. The medical questionnaire is completed and reviewed by a physician, Advanced Practice Registered Nurse (APRN), or physician assistant. Although some companies require a live virtual visit of patient and clinician, increasingly only select screened patients with identified potential contraindications are contacted by a message, phone, or video call.[1] Payment is usually out of pocket, although some companies do accept insurance. Patients receive the prescription via electronic delivery to a local pharmacy or via the mail.[2]

Direct-to-consumer (DTC) prescribing and healthcare services are expanding rapidly in the United States. This business model is distinctly different from hospital-based telehealth services that provide care through credentialed providers with privileges or contract models where hospitals, companies, or insurers are in contract with a telemedicine company whose staff provide telemedicine services specifically for the organization's patients and consumers. In many cases, the telemedicine company providers are credentialed and provided privileges with the organization as part of the contract.[2]

Direct-to-consumer care and prescribing stands on the marketing and advertising of pharmaceutical products directly to consumers or patients, as opposed to specifically targeting health professionals. Advertising of prescription medication is across all mass media platforms—particularly television, magazines, radio, and online platforms.[3]

Common DTC telemedicine companies' prescriptions include drugs for contraception, erectile dysfunction, acne, performance anxiety, insomnia, genital herpes, cold sores, influenza, sinus infections, urinary tract infections, and acid reflux. In addition, some provide scripts for human immunodeficiency virus preexposure prophylaxis and testing. The business model is efficient; data from the patient are usually obtained via questionnaire. Minimal provider-patient interaction allows the provider to see many more patients per day and enhances profit. There are no associated costs with upkeep of clinic space and staffing, which reduces cost. Finally, this platform seems to be a desirable one for patients uncomfortable seeking care for sensitive health issue and also for patients in rural areas with less access to providers. Patients can usually access care 24 hours a day, 7 days a week.[2,4]

The DTC telemedicine market has been dominated by 3 commercial telemedicine companies in the United States, namely, American Well (https://business.amwell.com/telehealth-solution/), Teladoc (https://www.teladochealth.com/), and Doctor on Demand (www.doctorondemand.com), with an estimated 7 million users in 2018.[5] Increasingly, large employers are adding limited telemedicine as a covered benefit through their insurers that contract with specific DTC telemedicine companies for services.[4]

SO, WHAT ABOUT THE OUTCOMES?

Internet or online prescribing is defined as a provider prescribing a drug for a patient based upon an interaction that has taken place online. This should not be confused with e-Prescribing where a provider sends a prescription electronically to a pharmacy through the electronic health record. In 2008, the Ryan Haight Online Pharmacy Consumer Protection Act established conditions for Internet prescribing and defined the elements of a valid prescription: issued for a legitimate medical purpose, issued in the course of professional practice, and with limited exceptions, the patient received a medical evaluation in person or via telemedicine. Until the patient-provider relationship is established in person or online, the prescription cannot be made. However, in some states, a patient-provider relationship based solely on Internet interactions is prohibited, and many states exert additional controls over Internet prescribing.[6]

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So, what is known regarding outcomes of DTC prescribing online? At this time, outcome data are limited as the market continues to expand. However, emerging evidence suggest that drug advertising may be a significant force driving patients to DTC prescriptions and this advertising significantly impacts the provider-patient relationship.[4,7]

In a national survey (National Survey of Health Information and Communication from October 10, 2017, to December 27, 2017), patient-provider interactions (1744) were evaluated in relationship to prescription drug advertising. Sample characteristics included 33.3% who were older than 65 years, 59.6% who were female, and 87.9% who had prescription drug insurance. Subjects (76%) reported they were likely to ask their provider about an advertised drug, and 26% reported that they had already asked the provider for an advertised drug, with 16% receiving the requested drug. Only 5% reported that drug advertising became a source of conflict with the provider. For 16% of respondents, drug advertising had resulted in questioning the provider's advice, and 23% reported they would look for another healthcare provider if they did not receive the requested prescription. Most of the sample did not believe prescription drug advertising had a negative influence on the patient-provider relationship.[7]

In a retrospective evaluation of 2015-2016 claims data from a large national commercial insurer, the quality of antibiotic management in adults with acute respiratory infection (38 839) DTC telemedicine visits was compared with 942 613 matched primary care office visits and 186 016 matched urgent care visits. In a matched analysis, antibiotic prescribing was clinically similar. However, DTC telemedicine visits had less appropriate streptococcal testing and a higher number of follow-up visits. Findings suggest there are opportunities for improvement to reduce repeat visits.[4]

In another retrospective analysis, men aged 40 years or younger were evaluated for erectile dysfunction, who received care from an andrology clinic from January 2016 to March 2019. Variables assessed included demographics, physical examination, laboratory testing, and treatments. Five news sources were also analyzed during the study period to characterize whether DTC platforms were perceived as positive, critical, or balanced/neutral. (DTC platforms present themselves as medical authorities with supportive advertising and press coverage.)

Findings revealed that office consultation identified young men with significant comorbidities that would have been missed by DTC platforms, which depend on questionnaires for health screening. Furthermore, evidence of DTC online provider adherence to standards of practice is unknown. Patient perceptions engaging these platforms suggest a possible unfounded belief from advertising that they are receiving adequate medical assessment and treatment. The authors recommended that urologists consider incorporation of telemedicine elements within their practice to provide young men with evidence supporting the need for assessment beyond an online screening.[8]

At this time, there is no evidence regarding the prevalence of adverse events related to DTC care or prescribing by a variety of telemedicine companies. Perhaps the data are not collected or monitored. It seems that the DTC industry is expanding faster than the standards that should be in place to protect prescribers and patients. There is a lack of evidence supporting the practice of online screening for diagnosis and prescribing or what conditions can be safely treated online without an in-person physical examination or diagnostic testing. Although DTC telemedicine clinicians "must" be licensed in the state where the patient lives, there is variability across the country. Providers remain subject to policies by state boards regarding what is required for provision of assessment and treatment of patients online.[2]

Expansion of DTC telemedicine and prescribing is inevitable. Consider the increasing development of physiological sensors via smartphones or watches for glucose, heart rhythm, and blood pressure monitoring and the eventual impact on DTC telemedicine and prescribing. This technology will certainly fuel DTC telemedicine expansion of services provided as well as the number of persons providing this care.[9]

Nursing will continue to be part of the DTC telemedicine and prescribing expansion. Evidence supports nurse prescribing in community care settings including primary care and hospitals. In a 2016 review of 42 studies, prescribing nurses' outcomes were compared with those of medicine prescribers for high blood pressure, diabetes control, high cholesterol, adherence to medication schedules, patient satisfaction, and health-related quality of life. For this review, nurses with varying levels of undergraduate and postgraduate education as well as specific on-the-job training related to a disease or condition provided comparable prescribing outcomes compared with physicians and frequently had medical support, which facilitated a collaborative practice model.[10]

However, it is wise to consider that these outcomes may or may not translate to the DTC commercial prescription platforms where the provider-patient relationship is not a primary element. Established provider-patient relationships are not generally part of the DTC telemedicine platform unless the service is linked to the primary care provider as an option for care. Lack of access to records, laboratory obstacles, and technology limits on physical assessments may further limit visit efficacy and outcomes.[4]

THE FUTURE

Going forward will not be accomplished by anecdotal reports, panic prescribing, and testimonials. The way forward

is development of safe and effective interventions through research with adequate power that permits knowledge expansion.[11] Risks for drug abuse through use of multiple DTC-prescribing platforms must be addressed.[10]

The rapid life cycle of technology expansion associated with DTC prescribing and lack of evidence regarding efficacy, safety, and outcomes makes advanced practice nurse prescribing education and competency evaluation difficult. Foundational skills are needed for technology application to clinical practice and to enhance digital literacy. In addition, education regarding health policy, device approval, and regulations regarding digital health technologies is necessary now for the clinical nurse specialist and going forward.[12]

A very helpful website full of resources regarding DTC prescribing can be found: the Center for Connected Health Policy that also monitors state-by-state requirements for telemedicine and prescribing and provides a very valuable interactive information map of the United States.[6] Another valuable resource is the Digital Apothecary, which can be found at https://www.thedigitalapothecary.com/pharmacy-innovation-news/2020/11/29/the-startups-disrupting-the-pharmacy-sector-2020-wrap-up for a listing of DTC telemedicine and prescribing companies. Finally, consider addressing with your patients the erroneous perception that evidence for "good" healthcare is obtaining a prescription, an idea fueled by constant advertising via television, online, and in social media.[2]

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