



Contents lists available at ScienceDirect



Perspective

Biologic logistics

Connecting with patients taking biologics

Jared Darveaux, MD

Gundersen Health, Onalaska, Wisconsin

ARTICLE INFO

Article history:

Received for publication November 29, 2019.

Received in revised form January 3, 2020.

Accepted for publication January 23, 2020.

The use of biologics has breathed new life into asthma management. They have provided truly life-changing improvement for those with atopic dermatitis, chronic idiopathic urticaria, and chronic rhinosinusitis with nasal polyposis. After a biologic has been chosen, the next challenge is making the medication available to the patient. Ongoing changes in medication delivery, such as at-home administration, insurance coverage, and reimbursement, have made prescribing biologics and monitoring these patients a moving target. The process can be cumbersome and confusing for patients and practitioners, leaving many practitioners discouraged. Thankfully, help is available to navigate the nuances of this process. Specialty pharmacies can aid in overcoming some of the barriers to access, whereas newer technologies that involve telemedicine can enhance patient monitoring.

Specialty pharmacies are a unique tool available to physicians. They can offer useful services beyond simply supplying medication. For patients, this service includes patient education on disease state, biologic administration technique, medication adherence, and adverse effect monitoring. Specialty pharmacies also help coordinate care, monitor asthma control through follow-up telephone calls, and provide proactive refill reminders and renewals.¹ In addition, they increase direct pharmacist and nursing support to patients, which can in turn improve patient satisfaction. Of benefit to patients and practitioners, some specialty pharmacies can contact the prescriber when a patient reports poor asthma control. For practitioners, they can proactively initiate prior authorizations as well. Health system–based specialty pharmacies have the added benefit of access to, and documentation within, the electronic medical record, which further enhances communication, coordination, and synchronization of the patient's other medications, including inhalers. One particularly difficult barrier to biologic use is off-label use in pediatric patients whose age is not

within the US Food and Drug Administration–approved product label. Unfortunately, specialty pharmacies are bound by the constraints of the product label, so they may not be as useful in these specific situations.

Many practitioners use the “buy and bill” method for administration of biologics. However, with the development of at-home administration, this method may no longer be an option. Payers may be reluctant to reimburse the added cost associated with in-office administration. For practitioners, use of specialty pharmacies for at-home administration can save on practitioner overhead cost because they will no longer need to supply the drug to the patient in clinic. This approach also reduces the financial risk to the practitioner if the patient has difficulty with affordability. Some specialty pharmacies can aid in lower cost acquisition of biologic medications, for example, through 340B pricing. They can help navigate insurance coverage determination and investigate drug rebates and copay assistance programs offered to patients.

Some patients welcome the increased flexibility allowed by at-home administration. Others may have an aversion to the proposition of self-injection and would prefer to receive injections in the clinic. Although at-home administration optimizes convenience for the patient, it reduces the face-to-face encounters with the patient, which raises concerns about the ability to frequently and objectively evaluate adherence and control. Home administration may not be appropriate for some patients. Examples include patients with cognitive deficits or a history of adverse reactions to biologics. Mandatory in-office administration is, of course, at the discretion of the physician. Physicians may wonder whether more liberal prescribing of epinephrine autoinjectors is wise once a patient is transitioned to at-home administration. Because this practice is not recommended for routine medications more commonly implicated in anaphylaxis (ie, antibiotics), routinely prescribing epinephrine is unnecessary.

Medication adherence is an issue with all medications but is of even higher priority when dealing with costly biologic medications. Some allergists prefer in-clinic administration to ensure adherence. Others wish to more closely monitor patients with severe disease to

Reprints: Jared Darveaux, MD, Gundersen Health, 3111 Gundersen Dr, NC2-004, Onalaska, WI 54650; E-mail: jidarvea@gundersenhealth.org.

Disclosures: Dr Darveaux serves on the speaker's bureau for AstraZeneca, Sanofi/Genzyme, and GlaxoSmithKline and has received honoraria for these services.

<https://doi.org/10.1016/j.anai.2020.01.017>

1081-1206/© 2020 American College of Allergy, Asthma & Immunology. Published by Elsevier Inc. All rights reserved.

ensure a positive response and/or to closely monitor tapering of systemic corticosteroids. For patients living in rural locations or those with travel restrictions, avoidance of prolonged travel to attend injection visits may be particularly appealing. Newer technologies that involve telemedicine, mobile device applications, and wearable health monitoring devices may be the answer to appease patient and allergist concerns.

Mobile device applications and website-based daily diaries can provide real-time feedback to increase adherence through reminders, track disease status through symptom monitoring, and increase communication with practitioners.² Although in their infancy, wearable health monitoring devices are increasing in popularity and usefulness. Several wearable devices are now available to help track multiple aspects of health, including medication adherence, air quality and pollen levels, and monitoring for early signs of asthma exacerbation.³ Because firm policies are not always in place regarding the use of these products, caution must be taken to ensure private health information is being shared securely between patient and physician.

Some allergists may be concerned about loss of in-office revenue as biologic medications transition to at-home administration. Telemedicine offers another unique opportunity to offset some of these concerns while allowing for closer patient monitoring. Most health care plans and employers cover telemedicine services, although not all reimburse at the same rate as in-person services.⁴ Telemedicine is often more affordable to the patient. It also offers improved access to specialty care, which in turn improves health outcomes and patient satisfaction. Furthermore, telemedicine visits can be as effective in maintaining asthma control as in-person visits.⁵ Although telemedicine visits can facilitate patient care, they should not replace the requirement for routine in-office visits at set intervals.

Multiple telemedicine platforms exist, ranging from real-time video, remote patient monitoring, to store-and-forward options.³ Both the American Academy of Allergy, Asthma, and Immunology and the American College of Allergy, Asthma, and Immunology have toolkits available on their website to guide incorporation of telemedicine into practice. Guidance is available on topics such as integration with electronic medical records, billing, and reimbursement.

Maintaining good adherence and keeping biologic medications accessible and affordable for patients have become increasingly important as changes to medication delivery, reimbursement, and health care systems continue. The allergist must continue to evolve with these changes. Through working closely with our patients and using tools such as telemedicine, mobile device applications, and wearable technology, as well as using services offered by specialty pharmacies, we can continue to offer these life-changing therapies to our patients.

References

1. Bagwell A, Kelley T, Carver A, Lee JB, Newman B. Advancing patient care through specialty pharmacy services in an academic health system. *J Manag Care Spec Pharm*. 2017;23(8):815–820.
2. Unni E, Gabriel S, Ariely R. A review of the use and effectiveness of digital health technologies in patients with asthma. *Ann Allergy Asthma Immunol*. 2018;121(6):680–691.e681.
3. Greiwe J. Using telemedicine in a private allergy practice. *J Allergy Clin Immunol Pract*. 2019;7(8):2560–2567.
4. Elliott T, Shih J, Dinakar C, Portnoy J, Fineman S. American College of Allergy, Asthma & Immunology position paper on the use of telemedicine for allergists. *Ann Allergy Asthma Immunol*. 2017;119(6):512–517.
5. Portnoy JM, Waller M, De Lurgio S, Dinakar C. Telemedicine is as effective as in-person visits for patients with asthma. *Ann Allergy Asthma Immunol*. 2016;117(3):241–245.