Vehicles Matter

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Acne vulgaris (AV) is one of the most common diseases that we encounter in our clinics every day.[1]

Yet, despite the dermatology community's perceived familiarity with acne vulgaris, it is worthwhile to note that we continue to learn more and more about the epidemiology and the pathogenesis of AV as well as novel therapeutic options. In fact, a bevy of new developments over the past few years have coalesced to modify our approach to management of the acne patient. Among these, we continue to recognize the reality that acne is not just a disease of adolescence. In fact, one analysis of healthcare utilization showed that roughly one-third of those seeking care for acne were aged 12 to 17, meaning the vast majority of patients are 18 or older.[2]

While dermatology providers have always recognized that acne can impact our patients psychologically, the body of evidence has grown substantially in recent years, showing that the impact of the disease is variable and widespread. The characterization of acne as a primarily inflammatory disease has also been cemented in recent years. These various findings have all come to light against the backdrop of a paradigm shift in the medical community's attitude toward antibiotic resistance and antibiotic stewardship. Current guidelines of care for acne emphasize strategies that reduce dependence on antibiotics and minimize the risk for developing resistance.[3]

The evidence shows that acne is a condition with both physical manifestations and psychological consequences that affect our patients across all age groups. It warrants early and efficient therapeutic intervention. And it requires that clinicians thoughtfully assess available treatment options not just for their short-term anti-acne benefits, but also for their long-term impact on the overall public health.

Despite these recent findings, only few chemical entities have been approved to treat acne vulgaris in the last decade, leaving dermatologists to rely on well- established molecules to manage the condition. Hence, the focus of innovation has been optimal formulations and the refinement of vehicles for topical drug delivery, yielding maximum efficacy and tolerability of well-known active drugs.

Consider fixed combination topical gel formulation of clindamycin phosphate 1.2% and tretinoin 0.025% which may be ideal for acne care, as topical clindamycin provides beneficial anti-inflammatory effects and reduces *P. acnes* load.[4]The use of a topical retinoid is standard of care for acne, having not only anti comedogenic but also anti-inflammatory impact. Although formulating tretinoin with other molecules had proven difficult in the past, the ability to offer the retinoid and antibacterial drug in a single, once-daily formulation simplifies the patient's regimen and encourages therapeutic adherence.

Benzoyl peroxide creamy wash is another example of vehicle innovation that will be discussed in this supplement. Many patients find topical benzoyl peroxide to be irritating to the skin. Yet the drug is a very important therapeutic tool for acne. This antimicrobial agent efficiently targets *P. acnes* and has not been associated with any risk for bacterial resistance and concomitant use of benzoyl peroxide with topical antibiotics has been shown to reduce antibiotic resistance.

Of course, patients will only use a product that they find pleasant to use, easy to use, especially, once a day use. Therefore, patient adherence is proven to increase better outcomes with increased efficacy and tolerability.

Patients with acne desire clearance. Dermatology providers today have more options than ever to tailor treatment to each patient's needs, in light of current best evidence regarding the pathogenesis and treatment of the disease. While no new chemical entities for topical delivery have revolutionized our approach to acne management, ongoing evolution in topical vehicle formulation is optimizing therapeutic benefit and the patient experience, leading to better clinical outcomes.

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