# CHAPTER 57 Over-the-Counter Acne Treatments

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### **BASIC CONCEPTS**

- Over-the-counter cosmeceutical products are frequently used in the treatment of acne.
- Topical benzoyl peroxide is one of the most effective over-the-counter acne treatments.
- Other active agents in acne products include hydroxy acids, salicylic acid, sulfur, retinol, and azelaic acid.
- Leave-on products have a more profound effect on acne than cleansers.
- Mechanical treatments such as scrubs and light devices may improve acne.

## Introduction

Although acne is one of the most common conditions that a general dermatologist treats [1], most people with acne will first try to self-treat before seeking the assistance of a healthcare professional. A survey carried out in 2000 demonstrated that 75% of acne sufferers waited about 1 year prior to seeking the help of a healthcare professional [2]. Another study estimated that one-third of those battling acne will ever consult a physician regarding their condition [3]. Without the assistance of a physician, patients will often turn to the drugstore shelves to treat their acne.

A plethora of over-the-counter (OTC) modalities exists for treating acne. These modalities include topical cleansers, creams, lotions, gels, and masks as well as mechanical treatments, essential oils, and oral vitamins. The non-prescription acne market is one of the fastest growing segments of the dermatologic industry. This OTC market worldwide is estimated to be 2–4 times the size of the prescription market. In 2019, it was estimated that consumers spent approximately \$213 million on OTC antiacne products. The market has steadily increased since 2001, where it was estimated that consumers spent approximately \$100 million on OTC antiacne products (Figure 57.1) [4, 5].

The Food and Drug Administration (FDA) is the regulatory agency that presides over the marketing of non-prescription acne products. In the Final Acne Monograph, the FDA states that any product labeled as an "acne drug product" is defined as: "A drug product used to reduce the number of acne blemishes, acne pimples, blackheads and whiteheads." The FDA defines OTC products that fit this description to include: salicylic acid (SA), sulfur, sulfur combined with resorcinol, and benzoyl peroxide [6]. Although products cannot be sold bearing an antiacne label unless they contain one of the above-approved ingredients, many other products are marketed toward the acne-prone consumer claiming to "heal," "purify," or "cleanse," the skin and pores.

In this chapter, we address OTC products that are marketed for the treatment of acne, not just those products that the FDA defines as an "acne drug product." There are a multitude of OTC products with labelling that implies an acne efficacy. Some of these washes and leave-on products contain benzoyl peroxide, SA, alpha-hydroxy acids, polyhydroxy acids, lipohydroxy acids (LHAs), retinol, azelaic acid, or sulfur. Mechanical treatments exist as well and come in the form of cleansing brushes, adhesive pads, heating devices, light devices, and scrubs. Some patients may turn to homeopathic remedies such as tea tree oil or chamomile. Oral vitamins, such as vitamin A, zinc, or nicotinamide are also tried as an OTC acne fix.

## Soaps and syndets

Studies show that over half of those with acne believe that their condition is caused by poor hygiene and dirt on the skin [7]. This belief often leads patients to alter both how they wash their face and their face washing frequency. While washing the face twice daily is more optimal than washing once or four times daily, the quantity of cleansings probably does not matter as

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