

The Global Prescription Acne Medication Market

Acne vulgaris typically involves the clogging of sebaceous gland and hair follicles with oils or skin cells. The condition is associated with *Propionibacterium acnes*, which has exhibited some antibiotic resistance in recent years. Acne affected approximately 120 million individuals in Europe and the United States in 2006. Treatments range from over-the-counter, topically applied products (many of which contain benzoyl peroxide) to antibiotic, hormonal, and retinoid prescription drugs to skin resurfacing procedures (microdermabrasion).

Market Summary:

According to several online sources, the global acne treatment market generates \$50.0 billion (or more) each year. A recently published estimate from GlobalData (April 2010) suggests the global acne medication market generated \$2.8 billion in 2009.

Revenues consistently demonstrated strong growth in the past decade, although the market analysts' numbers varied considerably. Conservative estimates were in millions of dollars, while aggressive figures were in billions. For example, Feed-back.com's historical analysis estimated that U.S. sales of the leading prescription acne brand medications generated \$341.0 million in 2000. A *Skin And Aging* article published in 2004 describing the U.S. acne and rosacea market referenced a prescription drug revenue estimate of \$597.3 million in 2003, which was expected to reach \$738.5 million in 2008. The 2003 global market was estimated at \$1.6 billion.[1]

In contrast, a 2004 article published by Entrepreneur.com cited a much higher U.S. prescription acne market worth \$1.6 billion in 2002, which was forecast to reach \$1.9 billion by 2006. The 2001 global market generated an estimated \$2.0 billion and was projected to reach \$3.3 billion in 2006.[2]

Products:

One online article suggests that the acne medication market is now dominated by generic products. Dermatologists, patients, and product reviewers all acknowledge the dominance of benzoyl peroxide and salicylic acid in many over-the-counter medications. Branded products apparently account for a relatively small portion of the market, although products such as *BenzaClin*, *Diane-35*, *Differin*, and *SOLODYN* generate global revenues in the hundreds of millions.

As recently as five years ago, analysts recognized the opportunity and challenge for bringing new effective, innovative, safe medications to market. According to PhRMA's "Medicines In Development" database, ten acne medications are in various stages of clinical trials. A few existing medications are being investigated as standalone treatments or in combination with other drugs: Clindimycin (Skinvisible Pharmaceuticals / ULURU and Crawford Healthcare) and isotretinoin (Cipher Pharmaceuticals / Ranbaxy Pharmaceuticals). Six "novel" compounds are being investigated by Anacor Pharmaceuticals, Graceway Pharmaceuticals, Molecular Design International, NanoBio Corporation, PhotoCure, Upsher-Smith, and Warner Chilcott.[2]

Revenues, Growth Rates, & Forecasts:

Other published sources projected additional estimates for the global prescription acne drug market. In the most consistent progression, revenues rose from approximately \$2.2 billion in 2002 to \$2.5 billion in 2006 and \$2.8 billion in 2009. [3] The later number was projected to be \$3.02 billion in 2016, which assumes there will be a significant slowing of revenue growth. While demand remains high, revenues are expected to be adversely impacted by generic competition and the absence of new drug launches into the market. Table 1 shows one progression using these numbers.

Table 1**"Aggressive" Global Prescription Acne Drug Market, 2002 - 2011**

Year	Revenues	Growth Rate
2002	2,200,000,000	---
2003	2,250,000,000	2.3%
2004	2,300,000,000	2.2%
2005	2,390,000,000	3.9%
2006	2,500,000,000	4.6%
2007	2,600,000,000	4.0%
2008	2,700,000,000	3.8%
2009	2,800,000,000	3.7%
2010	2,850,000,000	1.8%
2011	2,900,000,000	1.8%
CAGR	2002 - 2006 = 4.1%	
CAGR	2009 - 2011 = 1.8%	
CAGR	2002 - 2011 = 3.1%	

Source: Feedback Research Services / Feed-back.com

A more conservative historical forecast started with combined revenues from prescription acne and rosacea medications of \$1.6 billion in 2005, which were forecast to reach \$1.9 billion in 2010. In the mid-2000s, retinoids represented approximately 60.0% of the total market.[4] Table 2 presents one analysis that extrapolates the 2005 and 2009 figures to estimate annual revenues and growth rates from 2002 through 2011.

Table 2**"Conservative" Global Prescription Acne Drug Market, 2002 - 2011**

Year	Revenues	Growth Rate
2002	1,450,000,000	---
2003	1,520,000,000	4.8%
2004	1,590,000,000	4.6%
2005	1,660,000,000	4.4%
2006	1,730,000,000	4.2%
2007	1,790,000,000	3.5%
2008	1,850,000,000	3.4%
2009	1,900,000,000	2.7%
2010	1,950,000,000	2.6%
2011	2,000,000,000	2.6%
CAGR	2002 - 2009 = 3.9%	
CAGR	2009 - 2011 = 2.6%	
CAGR	2002 - 2011 = 3.3%	

Prescription drugs are often divided into two broad segments by industry analysts for market analysis purposes: Topical products that are applied to the skin, and systemic medications are taken orally. Another option is to segment the market by category. As mentioned previously, the most popular prescription acne drugs include antibiotics, hormones, and retinoids.

Several online sources have published sales data for specific prescription acne medications over the past ten years. Comparison and extrapolation has been applied by Feed-back.com's staff to present the overview in Figure 1 of projected 2010 global prescription acne drug sales by category.

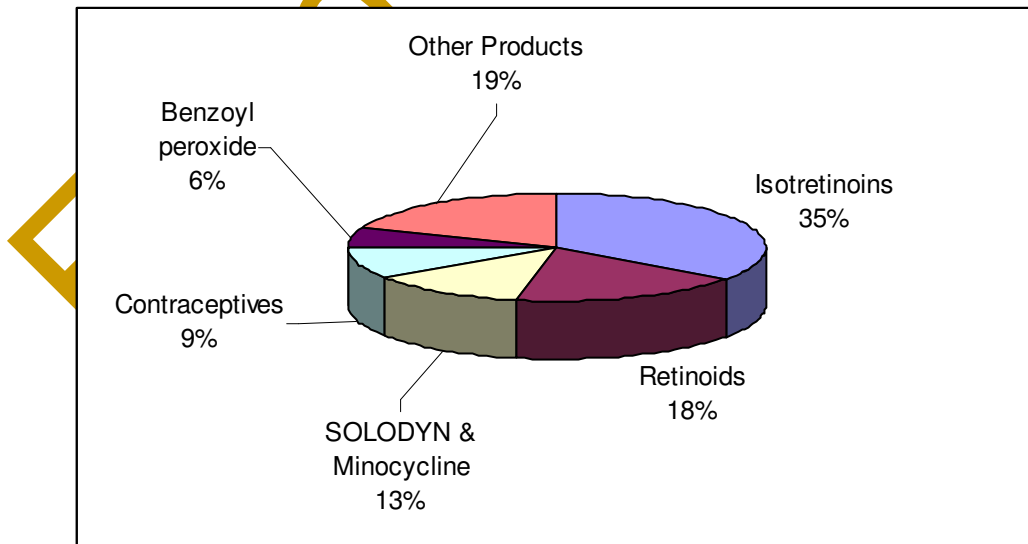
Based on extrapolation of historical estimates and early 2010 financial reports, demand for retinoids remains strong, with global revenues potentially reaching

\$510.0 million in 2010. Leading global brands include *Differin*, *Epiduo*, *Refissa*, *Renova*, *Tazorac*, *Tri-Luma*, and *Ziana*. Even though use of isotretinoin is associated with the development of depression in some patients, the drug is sold under various trade names: *Accutane*®, *Aknenormin*, *Amnesteem*®, *Ciscutan*, *Claravis*®, *Decutan*, *Isotane*, *Oratane*®, and *Sotret*®. Isotretinoin products may account for as much as \$1.0 billion of the global prescription acne market in 2010.

Benzoyl peroxide standalone and combination products may post sales between \$150.0 million and \$180.0 million through year-end. Legal maneuvers limited exposure of Medicis Pharmaceutical's *SOLODYN*® to generic competition in late 2009. Conservatively, global minocycline product sales may reach \$360.0 million in 2010. The combination acne-contraceptive drug, *Diane-35*®, had estimated global sales of \$245.0 million in 2006, which potentially grew to \$295.0 million in 2010.

Figure 1

Projected 2010 Global Prescription Acne Drug Sales By Category



Source: Feedback Research Services / Feed-back.com

Historical and projected global revenue estimates for brand, category, and generic products have been used to generate Feed-back.com's bottom-up analysis of the global prescription acne drug market in Table 3. The forecast includes a more optimistic position for *SOLODYN*® than originally forecast by analysts in early 2009, as demonstrated in Medicis Pharmaceutical's 2010 first quarter report and other product sales projections Feed-back.com's staff extrapolated from online sources. The following assumptions have also been applied:

- Aggressive market estimates (Table 1) correlate best with the independently derived bottom-up product sales numbers (Figure 1).
- Benzoyl peroxide product sales have grown annually at a modest rate from 2001 through 2009. Branded prescription-strength formulations may be available in over-the-counter products in 2011.
- Despite Roche's 2009 withdrawal of *Accutane*® from the U.S. market and the drug's adverse side effects, isotretinoin continues to account for a significant portion of the global prescription acne drug market.
- Generic manufacturers' minocycline products will erode Medicis Pharmaceutical's *SOLODYN*® market share in 2011.
- Retinoid products continue to demonstrate strong sales, based on benefits that appeal to adult consumers of all ages.
- Sales of *Diane-35*® is largely driven by acne-treatment properties rather than contraception.

Table 3**Bottom-Up Analysis Of The Global Prescription Acne Drug Market, 2009 - 2012**

Year	Revenues	Growth Rate
2003	2,350,000,000	---
2004	2,450,000,000	4.3%
2005	2,550,000,000	4.1%
2006	2,650,000,000	3.9%
2007	2,700,000,000	1.9%
2008	2,750,000,000	1.9%
2009	2,800,000,000	1.8%
2010	2,850,000,000	1.8%
2011	2,900,000,000	1.8%
2012	2,950,000,000	1.7%
CAGR	2002 - 2006 = 3.0%	
CAGR	2009 - 2011 = 1.8%	
CAGR	2002 - 2011 = 2.6%	

Source: Feedback Research Services / Feed-back.com

Issues & Trends:

While ten acne medications are currently in development (2010), few prescription acne products were brought to the U.S. market in 2009. In mid-2009, Roche withdrew *Accutane*®, although generic versions are still available. The branded product generated an estimated \$175.0 million worldwide in 1995, but adverse side effects and stringent labeling requirements led to steep declines in the 2000s. According to one source, *Accutane*® accounted for less than 5.0% of the total isotretinoin market after patent expiration in 2002.

Debate continues regarding the drug's safety profile. One physician suggests that overall, *Accutane*® and isotretinoin have done more good than harm. A blog

posting at LawyersAndSettlements.com challenges that assertion: Roche paid more than \$33.0 million awarded in personal injury lawsuits through the first quarter of 2010.[6].

An ongoing trend among prescription drug manufacturers is to develop, test, and market two or more medications in a single formulation. One example is Galderma's *Epiduo Gel*, which was introduced in early 2009. The gel combines benzoyl peroxide with a retinoid (adapalene), which significantly boosts effectiveness over use of either component alone (according to Galderma's clinical trial findings).[5]

Finally, while few novel drugs are likely to impact the market in the near future, other effective treatments are widely available. In-office dermatology procedures include chemical peels, facials, and microdermabrasion. Light therapy is another alternative provided by medical professionals or through use of home devices.

- [1] "An Update On Acne And Rosacea Treatments," *Skin And Aging*, August 15, 2004 (www.skinandaging.com).
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- [3] "Acne Drug Pipeline Analysis and Market Forecasts to 2016," www.sogroop.com, 2009 (www.sogroop.com). [2009 market estimate only]
- [4] PhotoPharmica Web Site, www.photopharmica.com (2005 and 2010 market figures)
- [5] "FDA Approves Eipduo Gel," Drugs.com, January 6, 2009 (www.drugs.com).
- [6] "Will Generic Accutane Spawn More Lawsuits?" LawyersAndSettlements.com, March 30, 2010.