Comment #: 12

FENWICK & WEST LLP

SILICON VALLEY CENTER

801 CALIFORNIA STREET | MOUNTAIN VIEW, CA 94041

TEL 650.988.8500 | FAX 650.938.5200 | WWW.FENWICK.COM

June 24, 2004

Federal Trade Commission
Office of the Secretary, Room H-159 (Annex L)
600 Pennsylvania Avenue, N.W.
Washington, D.C. 20580.

Re: Federal Trade Commission Study of the Strength of Competition In the Sale of Prescription Contact Lenses (Matter No. V040010)

To the Commission:

On behalf of Ocular Sciences, Inc. ("OSI"), we enclose the attached study entitled "Competition, Consumer Awareness, and Distribution in the Contact Lens Industry." This study was conducted by James Langenfeld and Robert Maness at the request of OSI, in response to the Request for Comments issued by the Commission on March 30, 2004.

Please do not hesitate to contact us if you would like additional information regarding the issues discussed in the attached study, or if we can be of assistance with additional areas of inquiry in connection with this matter.

Sincerely,

FENWICK & WEST LLP

Mark S. Ostrau

Enclosure

cc: Maureen Ohlhausen, Federal Trade Commission, Office of Policy Planning, 600 Pennsylvania Avenue, N.W., Washington, D.C. 20580

COMPETITION, CONSUMER AWARENESS, AND DISTRIBUTION IN THE CONTACT LENS INDUSTRY[1]

James Langenfeld[2] & Robert Maness[3]

June 24, 2004

---

[1] This study is sponsored by Ocular Sciences, Inc. The opinions expressed herein are those of the authors and do not necessarily reflect those of LECG or Loyola University.

[2] Director, LECG LLC, and Adjunct Professor, Loyola University Chicago Law School.

[3] Senior Managing Economist, LECG LLC

Table of Contents

I. Overview and General Conclusions

In the recently passed Fairness to Contact Lens Consumers Act, Congress requested that the Federal Trade Commission ("FTC") conduct an investigation of competition in the contact lens industry. On April 16, 2004, the FTC announced that it was soliciting comments on a number of issues from interested parties and industry participants in connection with its study.[4] We have been asked by Ocular Sciences, Inc. ("OSI") to study a number of the areas on which the FTC solicited comments. Our study and analysis is based on information and data from various public and industry sources, and from OSI.

In brief, we have concluded as follows:

- The contact lens industry is highly competitive at the manufacturer, prescriber, and retailer levels. Among key indicators are (i) the presence of many sellers at each level, (ii) a history of substantial price decreases, and (iii) significant competition through new innovations and better products.
- Consumers have access to substantial information and many choices regarding the availability, price, and alternate sources of prescriptions and contact lenses. Moreover, each year a significant number of consumers change prescribers and/or lenses, indicating consumers are not only aware of their choices, but can and do act on these choices.
- Of the five major manufacturers, Ocular Sciences is the smallest. It differentiates itself through, among other things, a marketing and sales strategy focused on eye care professionals and the sale of private label and limited distribution products. OSI believes its strategy (i) allows OSI to differentiate itself from larger

[4] See "Announced Actions for April 16, 2004," http://www.ftc.gov/opa/2004/04/fyi0425.htm. See also, http://www.ftc.gov/os/2004/04/040416contactlensstudyfrnfinal.pdf. (Hereafter "FTC Request for Comments").

competitors and (ii) encourages increased patient interaction with a doctor, resulting in more patient satisfaction and fewer "dropouts".[5]

- OSI products are widely available, both through online and offline sellers. There is substantial information available to consumers about OSI's marketing strategy.
- Neither data nor theory supports any concern with the incidence of private label or limited distribution contact lenses. The procompetitive benefits of such marketing strategies have been validated in many industries, and appear to be evident in the contact lens industry as well.

The rest of this study is organized as follows. Section II analyzes the competitive nature of contact lens manufacturing, prescribing, and dispensing. Section III discusses the substantial information available to contact lens consumers, and its implications for competition and consumers. Section IV describes and analyzes OSI's limited distribution strategies, how they affect competition and consumers, and their impact on the market.

II. Competition in the Manufacturing, Prescribing and Dispensing of Contact Lenses

In this section we analyze the state of competition in the contact lens industry at three levels—manufacturer, retailer, and eye care professional.

A. Competition Among Contact Lens Manufacturers

1. Market Structure

The FTC Request for Comments asks for information on the national and local shares for prescribers, sellers, and manufacturers.[6] In this section we provide evidence on market structure in manufacturing.

The only source of data available to us with estimates of shares of all major manufacturers is proprietary data purchased by OSI from Health Products Research, Inc. ("HPR"). HPR is an independent market research company that, among other things,

[5] "Dropouts" are people who discontinue use of contact lenses.

[6] See FTC Request for Comments, question 4, p. 6.

provides survey-based marketing data for the vision care industry.[7] HPR collects data from a survey of eye care professionals who keep a "diary" of patients' prescriptions and dispensing. HPR calculates share in two ways—number of lenses dispensed and patient "visits" (dispensing occasions). HPR defines patient "visits" as "visits to a practitioner where contact lenses are dispensed; also includes refills mailed from the practitioner to the patient."[8] Thus, patient visits should roughly track the share of prescriptions across manufacturers. Because contact lenses vary substantially in the number of lenses purchased at a time (daily disposable vs. one month lenses, etc.), analyzing market share based on lenses sold may not be as meaningful as visits.

There are five substantial contact lens manufacturers—Vistakon (a subsidiary of Johnson & Johnson), Bausch & Lomb, CIBA Vision (a subsidiary of Novartis), OSI, and CooperVision. Table 1, based on HPR data, provides estimates of shares by patient visits. A review of the shares of these five companies shows that all five have a well-established presence in the market. Vistakon has the largest share, but is not in a "dominant" position. Of the five major competitors, OSI is the smallest. Given the other indicia of competition, discussed below, the manufacturer market shares do not suggest potential competitive concerns.

Table 1
2003 Share of Patient Visits for Soft Contact Lenses

	Total Patients	Patients New to Contacts
Bausch & Lomb	14.0%	17.0%
Ciba Vision	23.1%	19.9%
Cooper Vision	13.1%	18.0%
OSI	12.4%	13.2%
Vistakon	36.2%	30.9%

Source: "Vision Information Services-Contact Lens Report," Fourth Quarter 2003, Provided by Health Products Research, Inc. for Ocular Sciences, Inc., Tables SC-1X, SC-6X and SC-17X.

[7] "The **Market Survey Group**, a subsection of Market Research, specializes in the development and implementation of market tracking studies for clients whose product sales/usage is not captured by pharmacy audits. These include vision care products as well as vaccines and other products dispensed directly froma physician's office." http://www.hprintl.com/mr.html, visited June 15, 2004.

[8] See "Vision Information Services-Contact Lens Report," Fourth Quarter 2003, Provided by Health Products Research, Inc. for Ocular Sciences, Inc. ("HPR Report").

One limitation of the HPR data is that it does not generally include prescriptions filled through Internet/mail order vendors. Since HPR collects data from provider diaries of prescriptions dispensed, these providers may not record a prescription that a patient fills through a mail order or Internet outlet not affiliated with the retailer or chain. Since OSI does not sell to Internet-only retailers, the HPR data likely overstates the share of OSI somewhat. However, the HPR data otherwise appears reasonably indicative of market shares, based on corroborating data available to OSI through the Contact Lens Institute ("CLI"), a contact lens manufacturer trade association. CLI provides aggregate market data from which it is possible for OSI to estimate its share, but not that of other manufacturers. For 2003, the CLI data showed that OSI had an approximate 11.7% share of total soft contact lens sales (based on wholesale revenue) in the U.S.[9]

Market share at a given point in time may not reflect the dynamism of competition in a market.[10] Additional information can be learned from competition for new customers and changes in shares over time. Column 2 of Table 1 provides estimates of share of patient visits for patients new to contacts. Although overall these measures of share are similar to shares based on total patients, Vistakon's share is noticeably lower for new contact lens wearers than for total patients. This suggests that, despite Vistakon's strong position, its competitors have been relatively successful in attracting new patients, and there is the potential for Vistakon's share eroding.

In addition, contact lens manufacturing has exhibited substantial variability in market shares and share rankings over the past 20 years. For example, in 1987 Vistakon was a relatively small player prior to the introduction of its Acuvue disposable lens. Bausch & Lomb was the largest manufacturer in that year.[11] Now Vistakon is by far the largest manufacturer, and Bausch & Lomb is the third largest. Such variability in share is another indicator of competitive vigor.

---

[9] Contact Lens Institute 4Q03 Summary and OSI data.

[10] See FTC/DOJ *1992 Horizontal Merger Guidelines*, §1.521.

[11] See Christensen, "Molding the Impossible: The NYPRO/Vistakon Disposable Lens Project," *Harvard Business School Case Study,* November 23, 1994, p. 3. Bausch & Lomb's share was 25% in 1986.

2. *Price Competition Among Contact Lens Manufacturers*

Contact lens manufacturers compete along a number of dimensions, including price, product innovation, promotion and marketing, and distribution strategies. Manufacturers' overall competitive strategy consists of the combination of these and other elements. In this section we review evidence on price competition, and we examine some of the other dimensions of competition in the following sections.

We do not have detailed information on pricing across manufacturers, or historical information on industry prices for more than a few years. However, it is well known that per lens prices have fallen dramatically over the past 20 years, and continue to fall. OSI believes a year's supply of disposable lenses (20 or so per eye) today costs about the same as an equivalent single non-disposable lens cost 15 years ago. In addition to the approximate 20-to-1 per unit cost reduction, disposable lenses do not require as much cleaning solution and other related expenses as contact lenses used in longer replacement regimens, and offer the convenience of disposability.

We have OSI data on its average wholesale revenue per lens, beginning in 1997. Even during this relatively short period of time, these data show that OSI's average price declined significantly. Figure 1 represents the fall in average estimated wholesale price of OSI's spherical soft contact lenses from 1997 to 2003, indexed to the 1997 price.[12] As the figure indicates, per lens prices have fallen by approximately 30 percent over seven years.[13] Other data sources confirm the decline in contact lens prices.[14] These price declines have taken place even though contact lenses are far more sophisticated and treat a wider variety of conditions, so the "quality adjusted" prices of contact lenses have fallen even more. These price declines are an indication of significant competition among contact lens manufacturers.

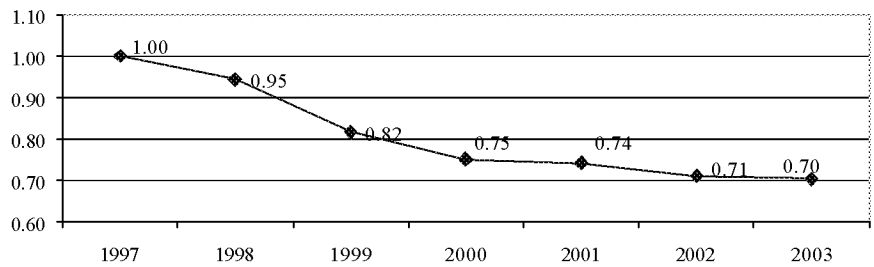
---

[12] OSI provided information on total revenue for spherical lenses in each year, along with total boxes of spherical lenses shipped (6 lenses per box). We excluded the number of diagnostic boxes shipped since those are generally free, and calculated a per lens price for lenses that were actually sold by OSI to its customers.

[13] Adjusting for inflation, the reduction in real prices between 1997 and 2003 was about 39 percent.

[14] See, e.g., Contact Lens Institute, *U.S. Soft Contact Lens Market Trend* (quarterly data).

Figure 1
Average Wholesale Price of OSI Spherical Contact Lenses



Source: OSI Internal Data

Other elements of price competition between manufacturers are periodic sales and discounts, as well as the prevalence of coupons and rebates in the industry.

3. Competition in Product and Process Innovation

There is also substantial rivalry among manufacturers for product and process innovations. Soft contact lenses were first introduced by Bausch & Lomb in 1971.[15] Since that time, there have been a number of major advances in manufacturing technology that have improved lens quality and reduced costs, and thus per lens prices, resulting in the development and introduction of disposable lenses replaceable on a biweekly, weekly, and even daily basis.[16] Data from HPR indicates that new products from a variety of manufacturers are introduced most every quarter, as shown in Appendix 1. These innovations and others have enhanced competition between contact lens manufacturers and provided benefits to consumers.

Along with the growth of soft contact lenses, manufacturers have continued to offer consumers more choices of products. One of the major innovations in contact lens technology and innovation has been the increase in the amount of time a lens can be continuously worn. Initially, soft contact lenses were not suitable for extended wear and had to be removed at night. Since soft lens contacts were not very oxygen permeable,

---

[15] See "Trends in Contact Lenses & Care," The Bausch & Lomb Annual Report to Vision Care Professionals, December 2001, p. 8.

[16] See Silk, *et al.*, "Vistakon: 1 Day Acuvue Disposable Contact Lenses," Harvard Business School, Case Study No. 9-596-087, February 1, 1999. See also, Pisano, "CIBA Vision: The Daily Disposable Lens Project (A)," Harvard Business School, Case Study No. 9-696-100, January 4, 2002.

they could prevent oxygen from reaching the cornea, and serious health consequences could result from failure to remove contacts at night or while sleeping. Through innovative materials and production methods, manufacturers began to develop thinner and more oxygen permeable contact lenses. As lenses became more permeable, extended wear contacts became available allowing consumers to wear their contacts continually, including while they slept. Recently introduced "silicone hydrogel" contact lenses are even more oxygen permeable than other varieties. In 2001, two new products introduced using silicone-hydrogel material, Bausch & Lomb's PureVision and CIBA Vision's Night & Day, were approved by the FDA.[17] These new materials allowed continuous wear for up to 30 days.[18] These new materials increase comfort, allowing even more people to use extended wear contacts.

Another area of innovation has been soft contacts capable of correcting a wider variety of vision problems. For instance, until relatively recently, patients with astigmatism (deformities in the shape of the eye) who wanted contact lenses had relatively few choices. More recently, a number of manufacturers have developed and introduced "toric" soft lenses capable of correcting for astigmatism. According to Bausch & Lomb, "Introductions of new soft toric contact lenses over the past several years, notably in disposable formats, provide eye care practitioners with many more opportunities to improve vision and build value with patients with astigmatism."[19] Growth has been rapid in this area— just over 34 percent between 2002 and 2003 alone.[20] Bifocal contact lenses are another example of recent product innovations in soft contact lenses.

Other improvements in contact lenses include the development of ultraviolet protection to help protect the eye from UV rays, and the development of handling tints that facilitate handling without affecting eye color appearance.

---

[17] Cole, "Continuous CL's: The First Year and Where do We Go from Here?" *2003 U.S. Optical Industry Handbook*, Jobson Optical Research, 2003, p. 97.

[18] The Bausch & Lomb products were removed from the market (at least temporarily) after Novartis prevailed in a patent suit against Bausch & Lomb. *Ibid.*

[19] See "Trends in Contact Lenses and Lens Care," The Bausch & Lomb Annual Report to Vision Care Professionals, December 2001, p. 11.

[20] Contact Lens Institute, *U.S. Soft Contact Lens Market Trend,* 4th Quarter 2003.

OSI has brought to market a number of design innovations. For example, OSI has made its contacts more comfortable by making the lens edge rounder, and has made lenses easier to handle through its use of a lenticulated carrier. OSI believes that both of these innovations have contributed significantly to its success. Most recently, OSI has developed a new aspheric lens (Biomedics 55 Premier) that provides better visual acuity in some patients.

Innovations are not restricted to the major U.S. manufacturers. In August 2002, the FDA approved Menicon Z, a rigid oxygen permeable contact lens made by Japanese company Menicon and distributed in the U.S. by Con-Cise Contact Lens.[21]

4. Competition Across Distribution Channels

Table 2
2003 Share of Patient Visits for Soft Contact Lenses
Total Patients

	M.D.'s	O.D.'s	Independent Retail Outlets	Chain Retail Outlets	Total
Bausch & Lomb	16.5%	12.4%	17.1%	14.5%	14.0%
Ciba Vision	21.5%	23.4%	24.7%	22.7%	23.1%
Cooper Vision	13.6%	13.5%	11.1%	13.3%	13.1%
OSI	11.5%	11.1%	13.5%	15.1%	12.4%
Vistakon	35.1%	38.3%	32.8%	34.2%	36.2%

Source: "Vision Information Services-Contact Lens Report," Fourth Quarter 2003, Provided by Health Products Research, Inc. for Ocular Sciences, Inc., Tables SC-2X, SC-3X, SC-4X, SC-5X and SC-1X.

The major manufacturers compete across the board in "bricks and mortar" retailers, as shown in Table 2.[22] The picture does not change when we focus on new patients, as can be seen in Table 3. Even OSI, which sells private label and limited distribution lenses, does not have substantially greater penetration with the smaller retailers.

[21] See Cole, "Continuous CL's: The First Year: Where Do We Go From Here?" *2003 Optical Industry Handbook,* Jobson Optical Research, 2003, p. 97.

[22] "Independent Retail Outlets" are stores and commercial O.D. group practices not included in the top 100 optical chains as reported by *20/20 Magazine*.