Abstract
For the third consecutive year, SM2 Consulting has surveyed users of the IntraLase FS Laser System (IntraLase Corp., Irvine, CA) to quantify how this technology is impacting the business of LASIK within the practice. As the industry has rebounded from its low point in 2002 (measured by total number of US LASIK procedures and average fees collected per eye), IntraLase has seen its number of laser placements in the US grow from under 40 (as of Q1 2003) to 182 (as of Q1 2005).
As was seen in past years, IntraLase customers continue to outperform industry averages. Average collected fees for these customers have increased over $400 per eye and revenues are up over 40% compared against the time period prior to acquiring the technology.
This year's report will address changes in price, volume and revenue and compare them to industry averages as reported by MarketScope newsletters. By aggregating responses from a large sample of customers, we are also able to assess trends in pricing over the past three years and offer insight into the sustainability of the premium fees being charged for femtosecond laser based technology. In addition, the report provides data on two other key “internal” measurements, conversion rates and retreatment rates.
Methodology and Demographics
81 US-based IntraLase customers submitted data for this year's survey. The survey asked for historical actuals on pricing, procedure volume, types of procedures performed, marketing spending, conversion rates, and retreatment rates. All submitted data are kept confidential and reported only in aggregate.
Surgeon experience with IntraLase technology is increasing, as the mean time using the femtosecond laser is now at 19 months, up from 12 months and 9 months (2004 and 2003 surveys, respectively). By comparison, IntraLase surgeons have slightly longer experience with custom technology, having used it for a mean period of 22 months.
Single surgeon customers comprise 41% of the survey data, while 59% are from multiple-surgeon customers. On average, approximately two-thirds (64%) of practice revenue is generated from refractive procedures. These data are consistent with the previous years’ surveys.

Price Increases
The addition of IntraLase technology represents a substantial investment and typically dictates the need to offset the cost through price increases for LASIK. In each of the past two years, the average price increase was $338 (2003) and $334 (2004). Last year’s survey asked an additional question, “Do you plan any additional price increases in the coming 12 months?” 21% responded “yes” and on average predicted it would be by an additional $178 per eye.
This year’s survey separated the questions into the amount of the initial increase and any subsequential price increases. The initial increase averaged $321 across all 81 customers, achieved by one of three methods. Since initial acquisition, 20 of 81 customers (25%) have instituted an additional price increase averaging $297 per eye. This amount, when spread across all 81 customers, yields a total fee increase of $394 for the typical customer (see Figure 1).
It is important to note that these price increases are separate from those put into place for customized treatment.

Figure 1: Average Fee Increase for IntraLase

<table>
<thead>
<tr>
<th></th>
<th>When First Acquired</th>
<th>Additional Since That Time</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raised List Price</td>
<td>$375</td>
<td>8</td>
<td>$344</td>
</tr>
<tr>
<td>(n=44)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separate Fee</td>
<td>$335</td>
<td>4</td>
<td>$313</td>
</tr>
<tr>
<td>(n=25)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced Discount</td>
<td>$293</td>
<td>3</td>
<td>$180</td>
</tr>
<tr>
<td>(n=4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No change to price</td>
<td>$0</td>
<td>5</td>
<td>$280</td>
</tr>
<tr>
<td>(n=8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average for All</td>
<td>$321</td>
<td>$73</td>
<td>$394</td>
</tr>
<tr>
<td>(N=81)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analysis was also done to assess whether a provider with traditionally higher-priced LASIK has “upward mobility” in their pricing strategy if they were to acquire IntraLase. Increase in fee was stratified by pre-IntraLase LASIK pricing submitted in the survey. As shown in Figure 2, customers with the highest pre-IntraLase prices (over $2,000 per eye) have raised their fees by an average of $330. For customers between $1,500 and $2,000, the fee increase was $372. For those between $1,000 and $1,499 it was $429. And, as expected, those customers whose prices were lowest ($800 to $999 per eye) had the highest average increase of $725 per eye.
As in previous years, IntraLase customers have seen their average collected LASIK procedure fees increase more than $400 since commercialization of the technology in early 2002. As shown in Figure 3, that amount collected per eye now averages $2,084. This is a new high water mark for IntraLase customers, whose fees have been hovering around $2,000 since late 2003. In addition, IntraLase customers are now using IntraLase in 88 of every 100 cases (shown at bottom of Figure 3). This again is a new high in terms of adoption and is a clear indicator that the technology has become a mainstream addition to those practices that have acquired it. By comparison, custom treatments are performed 50-60% of the time, an increase that reflects new indications for the procedure approved in the past year.

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**Procedure Volume and Revenue**

In addition to higher fees, IntraLase customers have seen growth in procedure volume and revenue once they acquire the technology. For this analysis, multiple consecutive quarters of data are averaged to eliminate seasonality. When measured against the period prior to acquiring IntraLase, customers have seen their procedure volume increase 15%, average price collected increase 22%, and their revenue from LASIK increase 41%. As seen in prior years, these increases also outpace the benchmark industry averages. By averaging the 4 quarters prior to custom approval to create a baseline for the industry, industry procedures are up 13%, prices up 14% and revenues are up 25%.

**Patient Decision Making**

**Conversion Rates** One of the value propositions offered by the technology is its potential to help reduce patient fear in the decision process to have LASIK. Consistent with last year, approximately half the customers (47%) reported an increase in their conversion rate of 13 points (from 65% to 78%). These customers attribute the major reason for their increase to IntraLase (79% vs. under 50% a year ago). Taken as a whole, IntraLase customers saw an increase from 69% to 76% or 7 points, meaning for every 100 consultations, another 7 patients (14 eyes) are scheduled for LASIK.

For customers who do 60-100 procedures per month, this conversion improvement translates into roughly 10% more procedure volume.

**Technology as a Choice** Just over one-third (36%) of respondents indicated that they allow patients to choose whether or not they want to have (and pay for) IntraLase technology to...
start their LASIK procedure. This group of respondents reported on average that 81% of patients are choosing IntraLase. As seen in Figure 6, this is an increase from 67% (2003) and 78% (2004). Conversely, the percentage of practices that make technology an option dropped significantly from last year. This is an indication that surgeon experience and confidence with IntraLase technology are leading more of them to abandon tiered pricing and consumer choice in favor of a simpler structure where IntraLase is included in the price.

Retreatment Rates Customers were asked if IntraLase has had an impact on their retreatment rates. Overall, retreatment rates for customers have dropped from an average of 10% before IntraLase to 6.1% currently.

Changes in retreatment are multi-factorial, and customers were asked to give a relative weighting to the different factors that have influenced their retreatment rate. Based on the data, it is reasonable to approximate that IntraLase customers have seen a 40% drop in retreatment, and are retreating 4 fewer eyes per 100 cases. Half of this can be attributed directly to IntraLase technology.

Discussion

The technology offered by IntraLase has evolved through different stages of acceptance within the ophthalmic community. As with many new solutions, it had originally been viewed as unnecessary or irrelevant. With time and experience, however, it has emerged as significant and, for many customers, essential. This is characteristic of a technology that shifts from early stage towards mainstream acceptance. For example, less than ten years ago e-mail was described as “the CB radio of the 90’s”, given credit as nothing more than a fad. Spam mail notwithstanding, I know of few people who would give up their e-mail access today.

Collective experience makes technology even better; we are seeing exactly that with IntraLase as well as with custom. Surgeon experience (as indicated in this survey) is comparable with both technologies, and they are working synergistically to create a better and safer refractive surgery procedure.

The numbers do not fully reflect the sentiment from many customers that being able to offer an all-laser approach to LASIK is simplifying the decision process for patients. This serves to lessen the amount of stress on patients, staff, and surgeons. While difficult to quantify, this effect has value to the practice.

One continuous question has centered around the ability of a practice to increase fees for LASIK. The past 5 year’s experience in the refractive surgery industry saw average pricing that was above $2,000 per eye decline to below $1,600 per eye and then rebound to $1,950 per eye. Total procedure volume followed a similar pattern. This is indicative that laser refractive surgery does not follow traditional supply-demand economics and is not as price sensitive as many providers either feared (if you are a ‘premium’ priced surgeon) or hoped for (if you are a ‘discount’ priced surgeon).

What the addition of IntraLase technology has proven is that consumers willingly pay more for the greater value they perceive from a safer and more precise procedure. This is overwhelmingly shown by the data from customers in this survey, who collectively represent approximately two-thirds of all US-based IntraLase procedures performed to date.

The additional analysis that stratified price increase by average fees collected per eye should put to rest any notion that only lower-priced providers can raise their fees. This has not been the case with either IntraLase or customized treatment additions to the LASIK procedure.
Another major question has centered around profitability: While it is clear that prices can be raised, surgeons question if this results in greater profitability. Figure 7 helps clarify this issue by showing incremental profitability at different procedure volume levels over a 5-year period. The increased expense is more than offset by greater profitability than was previously achieved by using the blade and keratome to begin the LASIK procedure. These figures are intentionally conservative; they do not include the increased savings in money, time and reputation achieved by reducing the number of retreatments that need to be performed.

**Figure 7: Incremental Gross Profit at Varying Procedure Volume Levels (60 Months)**

<table>
<thead>
<tr>
<th># of LASIK procedures per mo.</th>
<th>60</th>
<th>80</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in Fees Per Eye</td>
<td>$394</td>
<td>$394</td>
<td>$394</td>
</tr>
<tr>
<td>Additional Expense of IntraLase Per Eye</td>
<td>-312</td>
<td>-274</td>
<td>-251</td>
</tr>
<tr>
<td>Savings from blade and keratome service Per Eye</td>
<td>+46</td>
<td>+39</td>
<td>+38</td>
</tr>
<tr>
<td>Additional Gross Profit Per Eye</td>
<td>+$125</td>
<td>+$180</td>
<td>+$181</td>
</tr>
<tr>
<td>Additional Gross Profit over 60 month period</td>
<td>$495,000</td>
<td>$844,000</td>
<td>$1,192,000</td>
</tr>
</tbody>
</table>

Breakeven = 32 eyes per month

**Summary**

IntraLase’s femtosecond laser technology has gained a significant foothold in the refractive surgery industry. It’s value as a component of the LASIK procedure has continued to increase through use by an increasing population of surgeons as well as through additional clinical studies that confirm its efficacy and safety.

The company and its customers continue to gain momentum and outperform industry benchmarks by leveraging the technology to offer and deliver to consumers a better procedure.

With three years of data now collected, our research team is impressed with the level of consistency year-to-year given that a different mix of customers responding to the survey each year. We look forward to continued monitoring of the progress of this technology as it becomes more and more mainstream.

References:
- MarketScope newsletter monthly editions from 2001-2005
- *How IntraLase Technology is Impacting the Refractive Practice*, Shareef Mahdavi, April 2004

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