



Efficiency Study:
Measuring the AMD Treatment
Burden and Practice Impact

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TARGET AUDIENCE

This CME is intended for all ophthalmologists.

LEARNING OBJECTIVES

Upon completion of this educational activity, participants should be able to:

1. Recognize, evaluate and define the practice changes that have occurred over the past 3 years.
2. Understand the relevance and applicability of the ABC Methodology in accessing practice profitability.
3. Assess practice profitability across service lines.
4. Describe the implications of our current treatment model for our national healthcare system.
5. Explain how to evaluate the socioeconomic implications of a potential new treatment.

FACULTY CREDENTIALS AND DISCLOSURE INFORMATION

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Dr. Dugel has disclosed he was/is a consultant/advisor for and a member of the speakers bureaus of Alcon, ArcticDx, Genentech, MacuSight and NeoVista.

Julia A. Haller, MD: ophthalmologist-in-chief, Wills Eye Institute; professor and chair of the Department of Ophthalmology, Jefferson Medical College, Thomas Jefferson University.

Dr. Haller has disclosed she is/was a consultant/advisor to Allergan, Eyetech, MacuSight, NeoVista, Neurotech, Ophtherion, Optimedica and Regeneron. She is/has served on the Data Safety Monitoring Board for Thrombogenics.

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Dr. Rich has disclosed that he has no significant relationships with or financial interests in any commercial organizations pertaining to this educational activity.

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Mr. Romansky has disclosed that he was a consultant for Alcon Laboratories. At this time, he has no significant relationships with or financial interests in any commercial organizations pertaining to this educational activity.

Kuo Bianchini Tong, MS: president, Quorum Consulting, Inc.

Mr. Tong has disclosed that he is/was a consultant/advisor to Carl Zeiss Meditec, Clarity Medical Systems, Genentech, Glaukos Corporation, Heidelberg Engineering and NeoVista.

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Reimbursement Scenario Evolves With New Practice Patterns

Pravin U. Dugel, MD (Moderator): The following discussion focuses on intravitreal injection for the treatment of neovascular age-related macular degeneration (AMD), a topic of great interest to every retina specialist in the country. Most would agree that no treatment has changed retina practices to a greater extent. When anti-vascular endothelial growth factor (VEGF) therapy was introduced, it significantly increased the number of patients eligible for treatment as well as the frequency with which they need to be treated.

These changes came upon us quickly and we are still trying to understand the financial impact they are having on our practices. Given the results of the Horizon Extension Trial of Ranibizumab — that prn dosing is not as effective as monthly dosing — it is important for us to address these practice impact issues. We may be delivering treatment in this manner indefinitely, and we must devise ways to do it efficiently. As one of our panelists has repeatedly stated, to do good, we must do well. Of course, we will always do what is right for our patients, but we have to survive and prosper in order to continue taking care of them.

As the managing partner of Retinal Consultants of Arizona in Phoenix, it was clear to me that we did not have enough data to guide us. Recently, however, Quorum Consulting, Inc. of San Francisco and several retina practices, collaborated to conduct several practice efficiency studies, which have provided us with some very enlightening information.

Mr. Tong, I would like to begin by asking you two questions. One, why is it difficult to precisely determine practice profitability? Two, can you describe in layman's terms the activities-based costing (ABC) methodology Quorum employed in the Practice Efficiency Studies and its relevance to our situation?

Kuo Bianchini Tong, MS: Evaluating the financial status of a medical practice can be difficult, because practices are typically enterprises that involve multiple physicians and multiple partners. In addition, healthcare providers, particu-

larly physicians, are often reluctant to discuss issues, such as financial performance, revenue, expenses and ultimately profitability. They are not necessarily trained in those disciplines, and their main focus is to do right by their patients. These factors tend to be barriers when we attempt to examine issues related to finances and profitability.



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— Kuo Bianchini Tong, MS

However, if we are interested in applying financial tools and financial disciplines to healthcare providers and healthcare practices, we need to have a robust, objective methodology for evaluating revenue and expenses so we can determine the profitability of different services. This can be difficult and labor intensive, but successful techniques and methodologies do exist. They have been well described in other fields and are now being applied to health care.

The ABC methodology, which was used in the practice efficiency studies, does not focus on the traditional concepts of fixed and variable and direct and indirect costs. Instead, it focuses on where the activities of the practice are centered. It primarily allocates expenses to the activities, which provides a better sense of not only revenue but also expenses and profitability.

“SIGNIFICANT PRESSURE” ON THE RETINA SUBSPECIALTY

Dr. Dugel: Ophthalmic physicians, in terms of our numbers, occupy a relatively small part of the overall medical landscape in this country. However, we occupy a relatively large part in terms of healthcare dollars. In the past, this revenue was generated mostly from cataract surgery. Today, however, other services and therapies, such as pharmaceuticals and injections, are playing a role.

Dr. Rich, what is the general outlook for the healthcare system at this time? How will the new administration in Washington impact health care? Also, how are the changes in our practice patterns over the past few years affecting the system?

William L. Rich III, MD, FACS: The two most important issues to consider are manpower and financing. Every indication at this time leads me to believe that our manpower numbers will remain fixed. Despite some good evidence that we have a shortage of ophthalmologists, immense competition for training programs exists among other medical and surgical subspecialties. Primary care has a surplus but they are not going to give them up. Therefore, we can assume our pipeline for manpower is frozen.

In addition, the number of ophthalmologists per 100,000 patients is declining because the number of elderly people is increasing. Furthermore, disease indications are dramatically changing for our profession, specifically the retina profession. The rate of growth in diagnostic and office-based testing for diabetic eye disease and AMD is growing four-fold more than the rate of growth of the population.¹ The number of new cases of neovascular AMD diagnosed each year is now 200,000.²

The picture all of this paints is one of a fixed manpower pool and a dramatic increase in demand. This is what the entire profession is facing, but the most glaring example of the increase in demand is the use of office-based intravitreal injections to treat AMD.

Regarding finances, the way we have been paid has changed dramatically since 1997. In that year, ophthalmologists and retina specialists received 65% of their revenue from performing procedures and 35% of their revenue from diagnostic testing and office visits.³ Now, the ratio is entirely reversed. With 65% of our revenue³ now coming from office-based tests, injections, minor procedures, diagnostic testing and evaluations, I believe there will be, under President Obama, physician payment reform starting with Medicare. As you know, that will trickle down to third-party payers. What has emerged so far is a general consensus that procedures, evaluation and management codes and consultation codes are undervalued. Also, there is consensus that major procedures are undervalued and office-based testing is grossly overvalued.

With that being the prevailing thinking, unfortunately, I believe we will see a devaluation of the services we provide for office-based treatment of AMD and diabetic retinopathy. Hopefully, that devaluation will be offset by a significant increase in payment for major procedures. Even so, we are faced with a dramatically increasing demand on our resources in the office, and those resources will be tested by increased pricing pressure in the next 2 years. I anticipate cuts between 30% and 35% for all office-based diagnostic testing across the board for all of medicine, but a 45% increase for major procedures and a small increase for cognitive services. Unfortunately for the retina community, intravitreal injections are considered minor procedures, which likely means we will see substantial cuts in payment for these, in the 20%–30% range within 8 years.

The cost of treating wet AMD patients with intravitreal injections is also a major part of the equation. Including the cost of injections, office diagnostics, drugs and OCT testing, the 2-year cost of treating a patient with ranibizumab is approximately \$55,000. Treating a patient with bevacizumab for 2 years is estimated to cost \$2,000. Obviously, in the case of ranibizumab, the vast majority of revenue goes to the pharmaceutical industry. So I see significant pressure being put on the retina subspecialty in the next 5 to 10 years.

POLICYMAKERS SET SIGHTS ON OFFICE-BASED TESTING

Dr. Dugel: In other words, the reimbursement pressures are going to be felt in exactly the same areas to which our patients are being driven. If our treatment model remains the same, more patients will be forced into our offices; we will be performing more injections and more diagnostic testing, and we will have less time to devote to major procedures.

Dr. Rich: That is correct. These are big picture issues that are largely independent of AMD. The feeling among healthcare economists and policymakers is that office-based testing lacks a solid evidence base. For example, macular and optic nerve imaging is the fastest growing code in all of Medicare. The number of tests performed has increased from 175,000 to approximately 7 million in a period of 5 years.¹ When officials see a rate of growth that large, they begin to question if the service is overvalued. **RP**

References

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Application of Financial Analysis to Three Retina Practices

Dr. Dugel: Now that we have an overview of how practice patterns have changed and how the demand for services and reimbursement scenarios is changing for the retina subspecialty, we can discuss how all of this affects individual practices. As discussed, Quorum Consulting conducted Practice Efficiency Studies. These studies, which used the ABC methodology, provide us with some very interesting data. My practice and the practices of Drs. Tornambe and Murray were evaluated using this methodology.

EXAMINING ABC RESULTS FROM PRACTICE NO. 1

Dr. Dugel: In my practice, we examined and compared our financial records for the years 2005 and 2007. We chose 2005 because it was before the anti-VEGF treatment era in AMD. We chose 2007 because it was right in the middle of the anti-VEGF era.

When we looked at top-line revenue, we found that our services changed tremendously from 2005 to 2007. Our practice had been surgical and laser-based, but during that time period, it became an injection and diagnostic-based practice. The top-line analysis showed our revenue had gone up by 42%. However, when we looked at operating costs, we saw they had increased by 64%. Interestingly, our collection rate for drugs, when only ranibizumab was being used, was 100%. We had a high reimbursement rate for injections as well. Despite that scenario, which would normally be considered a best-case scenario for drugs, our profit-loss margin was down. Our margin declined by 14% from 2005 to 2007.

Applying the ABC methodology, we were able to ascertain which services were profitable and which were not, which explained why the profit-loss margin declined. From the perspective of contribution margin and efficiency margin, the most profitable service we provided was laser surgery. The second most profitable service was



From the perspective of contribution margin and efficiency margin, the most profitable service we provided was laser surgery. The second most profitable service was nonlaser surgery.

— Pravin U. Dugel, MD

nonlaser surgery, (vitrectomies and major procedures). The least profitable service was intravitreal injections. Finally, the analysis demonstrated that our practice was losing money on office visits, fluorescein angiograms and OCT testing. It was clear what happened. Our traditional services, which had been major surgical procedures before and during 2005, had been replaced by less profitable services, thus the decrease in our profit margin.

MODELING VARIOUS FINANCIAL SCENARIOS

Dr. Dugel: The Practice Efficiency Studies also allow for the modeling of different practice financial scenarios — “what if” scenarios if you will. For example, we modeled what would happen if we did not change the practice at all and reimbursement for intravitreal injection declined by 20%. The result would be a decline in profit of 12%. If injection reimbursement declined by 50%, profit would decline by 31%. If all reimbursement declined by 22%, then profit would decline by almost 100%.



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— *Kuo Bianchini Tong, MS*



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— *William L. Rich III, MD, FACS*



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— *Paul E. Tornambe, MD*

Extremely interesting to me was what would happen if we left the practice infrastructure intact, but used a more durable treatment for AMD. This scenario would actually impact profit margin more negatively than a reimbursement decline. If we were administering a drug every 3 months instead of every month, profit would decline 80%. If we gave a drug every 6 months, profit would decline more than 100%.

It is important to note that while I do have an ownership stake in an ambulatory surgery center (ASC), the ASC was not included in this analysis.

I would like to have Mr. Tong, founder and president of Quorum Consulting, address another aspect of the Efficiency Study results for our practice that were surprising to us. Why is diagnostic testing in general, OCT in particular, not profitable? It would seem that once the equipment is paid for, testing more patients would translate into more profit.

Mr. Tong: Regarding OCT testing, there is an accounting methodology that assumes the biggest part of OCT cost is the equipment itself. Once it is purchased or leased, the costs can be amortized over the number of patients tested, and it might appear that the incremental cost of doing one additional test is quite minimal. However, you have to consider the capacity of the instrument. This may vary among practices, but we have found that in most cases, there is not much unused OCT capacity. In fact, additional testing often requires leasing or purchasing of additional equipment.

Another aspect to consider when it comes to performing more OCT testing is the ancillary cost of staffing, room space, scheduling, billing and collections. The office must have this infrastructure in place to support increased testing volume. Under ABC accounting, all of these activities need to be factored into the cost of performing OCT.

It is not necessarily a black-and-white answer, but every practice needs to have a firm grasp on all of the different elements in order to accurately evaluate whether a test is profitable and whether doing more tests is more profitable.

Paul E. Tornambe, MD: In our practice, we have found that having additional OCT review stations increases efficiency tremendously. We are computerized with electronic medical records, and we believe the power of OCT lies in the digital representation, both for patient education and the ability to move from one test to another, which paper does not provide. Before we obtained the review stations, we had a major bottleneck at the OCT machine. Obviously, the technician could

not test the next patient while we were reviewing results with the previous patient. Our patients began to expect to see their OCT results when we made our treatment decisions, whether or not another injection was needed.

We did not have the extra reviewing stations at the time of our Practice Efficiency Study, so the efficiency gains they provided were not reflected in that data. I would encourage any practice that wants to improve the efficiency of OCT to allow for several reviewing stations.

Mr. Tong: That is a good point. The key is to really understand the dynamics of the current situation, have a baseline set of information, and measure as much as possible. From there, a practice can increase volume or change infrastructure or work flow or adopt other strategies to change the financials.

Dr. Rich: Most doctors are surprised to learn what they are paid for an OCT test once the cost of capital, maintenance contracts and other ancillary costs are factored in. On a national level, the doctor gets paid \$4.54 to use the instrument, and the room and rent cost \$2.54. But the biggest factor is the clinical staff time.

Dr. Dugel: From an efficiency standpoint, it would seem that one could perform many more OCT tests than surgeries in a given amount of time. For surgeries, we have to travel to the OR, wait for room turnover, and so on, which would seem to be less efficient than performing OCT scans. Why is the testing less profitable?

Mr. Tong: How the location of different services, office-based vs. ASC/hospital-based, affects their profitability is a function of different practices. It may be a function of how far the physician has to travel between home and the office and the OR. It may be a function of efficiency and scheduling when the physician goes to the hospital or ASC. Is he doing one procedure and having to turn around and go back to the office? Or is he able to schedule multiple surgical procedures back to back?

Every practice and every physician may be a little different, but the key is to consider all of the variables. We cannot assume that an office-based procedure is somehow inherently more profitable than a procedure that requires travel time. Many variables must be considered.

BIGGER PUSH TOWARD SURGERY CENTERS COULD PROVIDE EFFICIENCY GAINS

Dr. Dugel: What this seems to indicate for the future is that because we are going to have more reimbursement pressures on office-based procedures, we are going to be forced to be much more efficient in our offices. On the other hand, perhaps we will be able to find more opportunity for performing major procedures in surgery centers. Is that correct?

Timothy G. Murray, MD, MBA: That is absolutely correct. The retina subspecialty has not been able to participate in the increases in productivity that the rest of ophthalmology has achieved. In a 10-year period, every other subspecialty in ophthalmology has increased its productivity — procedures performed per hour — by about 35%. In retina, productivity has increased only about 10%. Why? Retina has been married to the outpatient department of the hospital. We have been unable to participate in the efficiencies of ASCs. Hopefully, that will change in the future.

Dr. Tornambe: For once, retina specialists might be positioned correctly. There is no question that the more procedures that are performed, the less the government wants to pay in reimbursement. That tends to happen with any medical service. However, we were trained to do vitrectomies — to stamp out blindness. Not to demean intravitreal injections, which can achieve wonderful things, but if surgeons can be reimbursed fairly for performing surgery, it would certainly offset reimbursement cuts for office-based services.



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Mr. Tong: Economists assumed that when reimbursement for retina surgery decreased, physicians would offset that by performing more surgeries. That did not happen. The frequency of major procedures has grown only 0%–1% per beneficiary per year, based on our studies. Economists are becoming aware of that now and are taking another look at how surgery is valued. I believe strongly that with payment reform, both primary care services and major procedures are going to benefit. I agree with Dr. Tornambe that retina subspecialists are well positioned for the future.

Julia A. Haller, MD: Except that some retina specialists have hired more people to do injections, so they are

spending more time in the clinic and have moved away from doing more complicated surgeries.

EXAMINING ABC RESULTS FROM PRACTICE NO. 2

Dr. Dugel: Drs. Murray and Tornambe, as you present the results of the ABC analyses for your practices, please include what you expected the studies to show, what they did show, whether the results prompted any practice modifications, and how the results will help you to assess future treatment models.

Dr. Murray: I would first like to point out that the analyses we are discussing today were performed in 3 different settings: a large, single specialty retina practice, a smaller, single specialty retina practice and our academically based, hospital-derived retina practice. Therefore, they cover every practice pattern for retina that is currently in place in the United States.

Quorum Consulting applied its ABC methodology to financial data from the Bascom Palmer Eye Institute at the University of Miami for 2006 and 2008. We provided the data from both our hospital and our physician-based practice. We examined our major hospital and physician services, nonlaser surgery, laser surgery, evaluation and management services, outpatient visits, OCT diagnostics, non-OCT diagnostics and intravitreal injections.

Going into the study, even with my MBA background, I did not truly appreciate how important the ABC approach is for determining profit and loss centers within these group services. My preconceived notion was that our volume had increased five-fold in that 3-year period and that volume would be associated with significant increases in revenue. That was indeed the case. However, because of the way the hospital and the practice work, the expense side of this is much less tangible to the individual clinician. I did not appreciate the associated marked increase in our operating costs to deliver typical services.

In terms of our charges and collections, we saw significant increases in the interval from 2006–2008. We were focusing only on increases, which suggested that our clinical practice was in good stead and quite profitable. We attributed much of that to the increase in imaging and intravitreal injections.

However, the ABC methodology gave us a much clearer picture of the cost of providing services, and it was striking. What I found particularly interesting was what distinguishes an academic hospital-based practice like ours from a physician-based practice. Most of our operating costs are, in fact, borne by the hospital. We have little

control over how operating costs are allocated by the hospital to our practice. The assumption had been that the clinical practice would derive a benefit from a shift of the costs of operations away from the practice and to the hospital. In fact, what we saw was that the operating costs significantly increased during that 2-year window, which is exactly what Dr. Dugel saw in the analysis of his practice.

The increased costs came from a rise in our capital spending for imaging equipment, a need to expand our staff to provide services and front and back office time for scheduling patients. There were also billing and cost increases to provide a nursing-based, physician-directed injection service, which is what we offer in our practice. We saw significant increases in charges and collections,



So, for physicians who are looking to improve efficiency, the first step should be to consider the insurance plans in which they participate. Having a waiting room full of patients does not necessarily guarantee that you will be successful.

— Paul E. Tornambe, MD

and a significant decrease in our relative overall profit. The biggest expense for us was related to the delivery of our injection-related imaging and injection-related services.

Our major profit center was our laser and nonlaser surgeries. We had a significant loss in our outpatient visits in terms of our expense. We had moderate increases in our OCT diagnostics, a significantly greater increase in our non-OCT diagnostics and a moderate increase in our injections. This was a time when we were using bevacizumab, not ranibizumab, for the vast majority of our anti-VEGF injections. We were utilizing bevacizumab in 60% of cases in 2006 and in 90% of cases in 2008. It was surprising to me that in spite of significant increases in our charging activities, significant increases in our collection revenue and significant increases in our patient volume, our incremental profits decreased in the 2-year span that was evaluated.

EXAMINING ABC RESULTS FROM PRACTICE NO. 3

Dr. Tornambe: We learned quite a bit from our ABC analysis as well. Several aspects of the results turned out differently than I had anticipated. It shows that unless you examine your data, you really do not know exactly what is happening in your practice. We know how to take care of retina problems very well. But we often have no idea what we are facing from a business management perspective. In truth, we did not need to be good businesspeople to survive 20 or 30 years ago, because so much fat was built into the system. Today, it is vastly different. If we do not manage our costs, especially our drug costs, we could be looking at bankruptcy.

We analyzed our financial data across 2005 and 2007. Around that time, we made a practice decision that had some significant effects. We decided to stop participating in HMOs and to rid ourselves of all insurance carriers that did not pay a certain amount. The results were interesting. For example, from 2005 to 2007, our office visits increased only 2%. However, our revenue improved 21%. The reason is that we were no longer taking the poorer paying plans, and we were getting reimbursed at higher rates for the patients we were seeing. So, for physicians who are looking to improve efficiency, the first step should be to consider the insurance plans in which they participate. Having a waiting room full of patients does not necessarily guarantee that you will be successful.

Our laser surgery situation was also very interesting. Laser procedures were down 37% between 2005 and 2007, because we had moved away from thermal laser treatment for AMD in favor of photodynamic therapy (PDT) and anti-VEGF injections. Even though the number of procedures decreased by 37%, revenue from those procedures dropped by 53%, because we were no longer getting reimbursed for the focal laser treatments at a higher rate. We were doing more PDT, which was more time-consuming, and we were not collecting on all of the drugs. We took a double hit from less revenue generated, and from not collecting well on some of the PDT drug expenses. That was an eye opener.

The number of OCT scans we performed in the time period analyzed increased quite a bit. It was up by 80% in volume, although the revenue was up only 40%, because, during that time, the government kept decreasing reimbursement for the testing. As expected, our biggest volume increase was in intravitreal injections. That was up more than 300%, and the revenue almost kept pace. Our revenue for injections increased approximately 236%, which did not surprise us too much. Even



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— Pravin U. Dugel, MD

though we were getting reimbursed less, we were more comfortable with the injections. We did them more efficiently as time went by. As the volume mandated, we became more efficient in bringing patients in, performing tests, reviewing data, administering injections and moving patients through the office.

With regard to surgery, vitrectomies, pneumatics, scleral buckles and so on, the number we performed remained flat. As Dr. Rich mentioned, we did not increase our surgical volume at all during that time. Our revenue dropped about 1%, as Medicare reimbursed less. Furthermore, we did not perform fewer procedures because we were being paid less. When patients needed surgery, we did it. When they did not need it, we did not do it.

We learned that we managed our anti-VEGF drug costs well. We predominantly used bevacizumab, and we did not need to hire additional staff members. In general, practices that use a great deal of ranibizumab need to hire a full-time employee just to manage the drug billing, which could easily be equal to all other billing in a month. If you are off only 2% or 3% of the collections for the drug, you are going to have severe financial consequences. Dr. Dugel, you had a 100% collection rate for ranibizumab, but you hired another person in order to track usage and hit that percentage, correct?

Dr. Dugel: That is correct. However, I believe that it does not really matter which drug we use, ranibizumab, bevacizumab or perhaps VEGF trap in the future. What matters most is the infrastructure required for this particular AMD treatment model. Next, we will discuss the ramifications of that concept for both private and academic practices. **RP**

Efficiency, Adaptability are Keys to Maintaining a Healthy Practice

Dr. Dugel: Our discussion thus far has yielded several important points regarding our current treatment model for neovascular AMD. The newest and most widely used treatments are the anti-VEGF agents. They are the most effective therapies we have ever had. At the same time, the frequency with which they must be given has brought major change to our practices. The number of patient visits to our offices has increased dramatically, and a great deal of physician and staff time is devoted to administering intravitreal injections as well as monitoring treatment effects, primarily with OCT.

It has been difficult to accurately determine the impact of these changes from a business management perspective. However, we have some new data, which has shed a great deal of light on this issue. The data is from Efficiency Studies conducted at three vitreoretinal practices using ABC methodology. This methodology focuses on the true cost of providing various services, which is the best way to determine which services are profitable for the practice and which are not. The results have shown us that while we are seeing more patients and collecting more revenue, overall practice profitability has decreased.

We also have discussed how the new AMD practice pattern is likely to figure into healthcare reform efforts and the future physician reimbursement scenario. As explained by Dr. Rich, we will probably see cuts in reimbursement for intravitreal injections and office-based testing, precisely the same areas where patients are being driven.

The final part of our discussion will center on what we can do in our practices to meet these challenges and remain financially viable.

PRIVATE AND ACADEMIC PRACTICES FACE SIMILAR CHALLENGES

Dr. Dugel: Dr. Haller, as a physician who has practiced in the top private and academic vitreoretinal centers, you have a broad perspective on the issue of the new

AMD treatment model and practice profitability. Does what we have been discussing surprise you in any way? What do you think are the implications for private and academic practices across the country?

Dr. Haller: While the current Practice Efficiency Studies represent a different way to analyze practice finances, the results are very similar to those from previously conducted studies in which I have been involved. For example, the American Society of Retina Specialists (ASRS) conducted a study using a slightly different metric, profit per retina specialist hour, or EBIT (Earnings Before Interest and Taxes, a standard accounting term) per retina specialist hour. This metric provided insights similar to the studies we are discussing here. As far as the profitability of different services, laser procedures were at the top of the list and were followed by intraocular injections and surgery. Diagnostic testing and office visits were at the bottom of the list.

The ASRS study focused on strategies for maximizing practice health and viability, with an eye toward meeting the challenges inherent in caring for the projected numbers of patients needing management by retina specialists in the years ahead. The study clearly indicated the importance of improving the efficiency of procedures, maximizing the use of the physician's time in particular.

One strategy that has been adopted to maximize time is batching tasks. For example, many practices now devote entire blocks of time to administering intravitreal injections and nothing else. The same approach can be used with surgery, so the doctor is not wasting time going back and forth between the office and the OR.

Other ways to maximize physician time are shifting the practice toward laser procedures and injections whenever possible, and using physician extenders for time-consuming tasks such as prepping patients and explaining follow-up schedules, which can be performed safely by nonphysicians, and are not the most efficient use of doctor time.

Also, consider reaching out to educate endocrinologists and diabetes specialists about the eye care their patients should be receiving. If a practice is trying to build up its financial health, those referral sources are particularly good because they bring us patients who may need the types of procedures that enhance practice viability.

In the academic setting, of course, many curve balls can come our way. A dean's tax, for instance, dramatically impacts practice profitability. So can other types of policies imposed from above over which individual doctors have little control. Across the board billing decisions and fees would be an example of that.

At the Wilmer Eye Institute at Johns Hopkins, we were able to order and manage our drug inventories through the hospital pharmacy. This was helpful at least initially. Hospital pharmacies are allowed a mark-up on many of the drugs we use, which covered the costs for the hospital to supply us with some clinic personnel. So that was a win-win situation, but it is a situation that does not apply to the freestanding private practice model.

KEEPING UP WITH BRISK SCIENTIFIC AND LEGISLATIVE CHANGES

Dr. Haller: Something for all retina practices to consider is the likely possibility of changes from the scientific standpoint. Dr. Rich talked about the way things may change politically, but the emergence of new technologies can have a major impact as well. We do not want to be changing our practices based on performing monthly injections for all of our AMD patients for the indefinite

future only to have some other modality, such as an implantable extended delivery device requiring only an annual injection, surprise us and leave our waiting rooms empty and our staff unused. We need to be aware of research advances, plan strategically and monitor where the situation is going if we want to survive amid the changes ahead.

Dr. Dugel: That brings up an interesting point. We have seen with ranibizumab and bevacizumab how quickly things change. They could change again just as quickly, if not quicker, if an implant or a microsphere or other more durable AMD treatment becomes available. How rapidly would we be able to change and adapt in our practices? How confident are all of you that we, and our colleagues in academics or private practice, would be able to adapt rapidly to avoid losing money?

Dr. Rich: If we think about historic patterns of delivery of care, I think we would agree that doctors are pretty intuitive. They adapt rapidly. Nonetheless, Dr. Haller's point is a good one. The potential impact of changes in technology always needs to be considered. In fact, the demand in services in the past 20 years has been technology based. We cannot really predict what our offices and surgicenters will look like in 5 years, but we need to recognize the trends in our practices, whether they are academic or private. We have to look at the trends, look at our bottom line and learn to adjust quickly.

Dr. Dugel: Because many of us are involved in emerging technologies and we attend professional society meetings regularly, we are in a position to understand where technology is headed. What about legislative changes?



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— *Julia A. Haller, MD*

How quickly might the next round of changes occur in that area? When they do occur, how quickly will they affect our practices?

Dr. Rich: Because President Obama favors fee-for-service Medicare, physicians are going to benefit. The \$347 billion debt owed, which is related to the Sustainable Growth Rate mechanism for setting Medicare's physician payment rates, is going to be off the books. We will be starting from scratch. Drugs will no longer count against our budget under the new administration.

Therefore, I think the huge overhanging debt that has been pounding down our fees and threatening our long-term viability is going to disappear. That is the good news. However, we may have some bad news related to healthcare reform, because about 46 million people, who are uninsured, may be coming into the system. That will increase the demand for our service, drive up costs and ratchet down fees. However, I think reimbursement for major procedures will increase nonetheless. We will see more demands on the efficiency of our practices.

POSITIVE CHANGES FROM A SURGICAL PERSPECTIVE

Dr. Dugel: Mr. Romansky, you have been involved with the Outpatient Ophthalmic Surgery Society (OOSS) for a long time. Your insights would be helpful. We tend to divide the services we provide into two broad treatment models, medical and surgical. So far in this discussion, we have discussed medical treatment models. However, changes related to surgery also have been occurring, vis-à-vis ambulatory surgery centers

(ASCs) and physician reimbursement. Can you give us some background on what has happened in the past 5 years and where you see the situation going as far as doctor and facility fees for surgery?

Michael A. Romansky, JD: I am very intrigued by this discussion of a migration from a medical to a surgical model for anti-VEGF treatments for AMD. Assuming we reach a point where the surgical modality is a viable treatment option, the vitreoretinal surgeon can take advantage of surgery sites that include the ASC, as well as the hospital and office.

For the most part, vitreoretinal doctors have been performing surgeries in hospital outpatient departments (HOPD). ASCs have not been much of a factor because, historically, ASC payment rates under the Medicare program have been inadequate to enable facilities to recoup the costs of performing surgery.

Let us consider CPT code 67036 for pars plana vitrectomy. In 2007, the ASC facility payment for the procedure was \$630 and in 2008, \$857. At these rates, it has been difficult, except perhaps for the most efficient surgeons, to operate in an ASC. Most physicians simply could not afford to do it. However, significant legislative and regulatory changes are affecting the way ASCs are paid. ASC rates are being tied loosely to hospital payment rates. Over the course of the next few years, ASC rates for vitreoretinal services will increase dramatically. Again, 67036 is illustrative, with payments increasing to \$1,077 in 2009 and to more than \$1,500 by 2011.

I am not certain that I agree with Dr. Dugel that the government's "plan" is to force the migration of services from the HOPD into the ASC, but it is not difficult to speculate that the procedures will follow the money.



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— William L. Rich III, MD, FACS

Let us examine the cataract surgery model. Twenty years ago, perhaps 15% of these procedures were performed in ASCs. With augmented payments — and changes in technology and technique that have enhanced surgeons' ability to use ASCs — the percentage of cataract cases performed in ASCs is approaching 70%. If the reimbursement for vitreoretinal services doubles, some procedures will shift to the ASC environment. My guess is that we will see an increasing number of vitreoretinal surgeons partnering in existing ASCs and developing their own facilities. Many predominantly cataract-oriented ASCs are becoming interested in recruiting vitreoretinal specialists.

Dr. Rich: Mr. Romansky and OOSS and the American Academy of Ophthalmology have been frustrated from a regulatory and financial standpoint by retina surgeons being excluded from the efficiencies of ASCs. They have worked very hard for the past 10 years to change this. They want to see retina procedures performed in ASCs at a reasonable price. But will the vendors price retina out of the market? I have been discouraged by their initial responses. The hope is that some competition will emerge among the equipment manufacturers.

Mr. Romansky: I agree. When we look at the hundreds and hundreds of procedures that were affected by the recent rulings, there is no question that, among the specialties and subspecialties that use ASCs, vitreoretinal procedures are among the big winners.

SOLID DATA ENABLES SMARTER ALLOCATION OF RESOURCES

Dr. Dugel: Do the panel members have any final comments?

Dr. Tornambe: We have 3 kinds of people in the world: those who make it happen, those who watch it happen and those who ask what happened. We want to be in 1 of the first 2 groups. If we have learned anything over the past decade about AMD, it is that it is a very rapidly evolving and changing area.

In the future, we may have at our disposal some kind of assay to determine which of the available treatments is best for each patient. If so, we will have to change our practice patterns accordingly. Most of the time, the scenario does not change overnight, so we should be able to see changes coming. We just need to be open-minded about them and be prepared to adapt along with the trend, as every other business does.

Dr. Murray: The ABC methodology we have examined in this discussion is a unique way to evaluate our practices. It allows us to understand what opportunities



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— *Michael A. Romansky, JD*

we have within our practices, and it helps us make better choices about how to allocate resources. Both are paramount in the current AMD treatment environment, which is expected to continue to change dramatically. It is a unique time for our profession. It is exciting as well as scary. We have been focusing on intravitreal injections for wet AMD and have not even touched on what the implications would be if treatment options for dry AMD enter the picture.

Either way, the recurring theme is the importance of making our practices more efficient. Then, beyond maximizing efficiency, we also face the critical global issues that the practice evaluations revealed. Certainly, the studies yielded some surprising results. When we have presented our findings at meetings, they have been a show stopper. We have a much better understanding of how important this information is to the future of our practices and how it may impact the way we manage our patients.

Dr. Dugel: At the end of the day, it boils down to the sustainability of our current treatment model and the adaptability of our practice to rapid change. We all agree that the current treatment model is not sustainable at various levels: macro and microeconomics, patient logistics, quality of life, and so on. A new treatment model will be adopted either due to a better drug or device, or due to legislative changes. History has proven that this will happen rapidly and will have enormous financial implications for all practices — private, academic and otherwise. The financial health of our practices may depend on how well we understand our current situation and how efficiently we adapt to a new treatment model. **RP**

Efficiency Study: Measuring the AMD Treatment Burden and Practice Impact

CME EXAM

Please select the single best answer and indicate your choice on the answer sheet on page 15.

1. How many new cases of neovascular AMD are diagnosed each year?
 - a. 2,000
 - b. 20,000
 - c. 200,000
 - d. none of the above
2. In 2007, ophthalmologists and retina specialists received 65% of their revenue from performing procedures and 35% from diagnostic testing and office visits. What is the current breakdown?
 - a. Exactly the same as in 2007
 - b. 65% from diagnostic testing and office visits; 35% from performing procedures
 - c. Evenly split: 50% from diagnostic testing and office visits; 50% from performing procedures
 - d. None of the above
3. What is the approximate 2-year cost (including the cost of injections, office diagnostics, drugs and OCT testing) of treating a patient with ranibizumab?
 - a. \$5,000
 - b. \$15,000
 - c. \$35,000
 - d. \$55,000
4. What is the approximate 2-year cost (including the cost of injections, office diagnostics, drugs and OCT testing) of treating a patient with bevacizumab?
 - a. \$2,000
 - b. \$5,000
 - c. \$15,000
 - d. \$50,000
5. During the past 5 years, the number of macular and optic nerve imaging tests has grown from 175,000 to approximately how many today?
 - a. 1 million
 - b. 3 million
 - c. 5 million
 - d. 7 million
6. According to Dr. Murray, in the past 10 years, all but one ophthalmology subspecialty has increased productivity (procedures performed per hour) by about 35%. Retina was the exception. What was the approximate productivity increase for retina over that same period?
 - a. 25%
 - b. 20%
 - c. 10%
 - d. 5%
7. According to Dr. Rich, healthcare reform could result in how many new (previously uninsured) patients entering the system?
 - a. 16 million
 - b. 26 million
 - c. 36 million
 - d. 46 million
8. According to Mr. Romansky, over the next few years, ASC reimbursement rates for vitreoretinal services will do which of the following?
 - a. Increase dramatically
 - b. Increase slightly
 - c. Decrease dramatically
 - d. Decrease slightly

Efficiency Study: Measuring the AMD Treatment Burden and Practice Impact CME EXAM

To earn CME credit, you must read the articles and answer the questions that appear on page 14, recording your answers in the answer key section at the right. You must score at least 70% on the post-test to receive credit. Mail a photocopy of this page to:

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Refer to the questions on the previous page. Indicate your answer by darkening one box for each question.

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| 4. a <input type="checkbox"/> b <input type="checkbox"/> c <input type="checkbox"/> d <input type="checkbox"/> | 8. a <input type="checkbox"/> b <input type="checkbox"/> c <input type="checkbox"/> d <input type="checkbox"/> |

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Yes No

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Yes No
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