Eye Care Trend Report

VOLUME III

Allergan

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Dear Colleague,

On behalf of Allergan and the National Association of Managed Care Physicians (NAMCP), we present to you *The Eye Care Trend Report, Volume III*, supported by Allergan. This report, third in a series, examines trends in clinical practice and managed care policies that drive the eye care category today from three key perspectives: those of ophthalmologists, optometrists, and managed care executives.

The report combines survey research with qualitative analysis for a comprehensive look at the eye care space. Three separate survey instruments were completed by 102 ophthalmologists, 71 optometrists, and 78 managed care executives. Where appropriate, survey responses were compared among the three groups surveyed. Survey responses were analyzed by our independent Editorial Advisory Panel, whose 12 members include health plan medical directors and pharmacy directors, ophthalmologists, and optometrists. Panel members also provided expert commentary and shared their experiences and insights.

Topics covered in the report include demand for eye care services, patient visits by payer, vision care plans versus health care plans, glaucoma treatments, electronic health records, formularies, prior authorization, dosing of eye drops, combination therapies, patient outcomes, potential shortage of ophthalmologists, and expanded role for optometrists.The report spotlights potential areas of collaboration between eye care professionals and health plans, including medication adherence, clinical pathways, and greater emphasis on patient outcomes and delivering value.

At Allergan, we value our customer relationships and appreciate the critical role you play in the delivery of quality health care. We hope that this series of reports will improve communication between eye care professionals and managed care executives and promote new ways of working together with the shared goal of optimal outcomes for the patients we serve.

Sincerely,

Mark Devlin
Senior Vice President
Managed Markets
Allergan

W. C. (Bill) Williams III, M.D.
Executive Vice President
National Association of Managed Care Physicians

Executive Summary

Topline Findings from the Ophthalmologist Survey (n=102)

- Diagnosis and treatment of eye disease, not including surgeries, account for 38% of practice revenue of ophthalmologist survey respondents (n=100). Next are surgeries for eye disease, 23%, followed by vision services, 18%.
- Of patients with ocular disease, on average, 33% are being treated for cataracts, 28% for dry eye, and 24% for glaucoma (n=102).
- Medicare is the dominant payer for ophthalmologist patient visits, accounting for 46%, according to responding ophthalmologists (n=102). Next are commercial plans, 27%, followed by Medicaid, 11%.
- Products used to treat glaucoma frequently have formulary restrictions by Medicare plans, with agreement having a rating of 3.9 on a 5-point scale, report survey respondents (n=102).
- Prior authorization requests are most often handled by fax, 36%, or by phone, 22% (n=102).
- The biggest benefit of electronic prior authorization is that it saves time when making the request, say 71% of survey respondents (n=101).
- The top external factors influencing acceptance of a new therapy are efficacy and safety, with a rating of 4.4 on a 5-point scale; patient adherence, 4.2; and cost of therapy, 4.2 (n=102).
- Ophthalmologist survey respondents agree most strongly that use of combination eye drops simplifies dosing, with a rating of 4.5 on a 5-point scale (n=101).
- Responding ophthalmologists overwhelmingly select prostaglandin analogues as first-line therapy for open-angle glaucoma, with 79% of responses (n=102).
- The top reason given by 39% of survey respondents for joining the American Academy of Ophthalmology's IRIS (Intelligent Research in Sight) clinical registry is to avoid penalties imposed by the Centers for Medicare and Medicaid Services (CMS) (n=85).
- Only 35% of responding ophthalmologists say it is likely that participation in the IRIS registry will lead to improved clinical outcomes within five years (n=98).
- More than two-thirds, 69%, of survey respondents believe there will be a shortage of ophthalmologists within 10 years (n=100).
- Asked to list challenges or opportunities in eye care, 25 respondents name declining reimbursements. Other challenges receiving multiple responses include cost containment, aging of the population, shortage of ophthalmologists, and turf battles with optometrists.

Topline Findings from the Optometrist Survey (n=71)

- Routine vision services account for an average of 42% of optometry practice revenue, followed by optical dispensary, 23%, contact lenses, 17%, and diagnosis and treatment of eye disease, 16%, according to optometrists responding to the survey (n=71).
- Showing the most revenue growth over last year is diagnosis and treatment of eye disease, up 62% (n=70).
- Vision care plans cover the largest share of patient visits to optometrists, with 37% (n=71). A total of

19% of optometrist patient visits are reimbursed by Medicare plans, followed by commercial plans, 16%, self-pay, 15%, and Medicaid plans, 13%, report survey respondents.

- Responding optometrists say 67% of all or the majority of patients' Medicare plans have formulary restrictions on products used to treat ocular conditions (n=70). The percentage is higher for commercial plans at 77% (n=70).
- Medicare plans most often have formulary restrictions for ocular medications used to treat dry eye, with a rating of 3.5 on a 5-point scale, followed by allergic conjunctivitis, 3.4, and glaucoma, 3.3 (n=67).
- Prior authorization requests continue to be handled mostly via fax, 41%, or phone, 34% (n=71).
- The most common reason for referral to an ophthalmologist is because the patient has cataracts, according to 60% of optometrist survey respondents (n=68).
- Survey respondents strongly agree that dry eye is a chronic, progressive disease.
- Cost of treatment regimen, with a rating of 4.5 on a 5-point scale, tops list of factors that most influence adherence, say survey respondents (n=71), followed by simplicity of regimen, understanding of disease, and patient education, with 4.3 each.
- Optometrists estimate that just 73% of eye drop instillations are successfully administered into the eye (n=70). About one-quarter, 24%, of eye drops are believed to be wasted, resulting in the need for early medication refills.
- Optometrists are only occasionally aware of the total cost of prescribed medication or patients' out-of-pocket costs, with ratings of 2.8 each on a 5-point scale (n=70).
- Optometrists already see themselves as the "primary care providers for eye care," according to 65% of survey respondents (n=70).
- Optometrists listed the following challenges facing the profession: online competition for eye exams and products; declining reimbursements from both health plans and vision care plans; increasing government regulation and reporting requirements; limited scope of practice for optometrists; and oversupply of optometrists.

Topline Findings from the Managed Care Survey (n=78)

- Diabetic retinopathy and wet macular degeneration garner the most attention from managed care executives, with a rating average of 2.8 each on a 3-point scale (n=77).
- A total of 62% of managed care respondents expect to see growth in incidence of diabetic retinopathy over the next two years while 52% expect to see growth in incidence of wet macular degeneration (n=77).
- A total of 30% of managed care respondents anticipate paying more attention to the eye care category in the future; 64% expect to remain neutral (n=77). Of those plans that serve a Medicare population, 36% expect to pay more attention to eye care in the future.
- Optometrists are included as medical providers of eye care services in the health plan's provider network, say 56% of responding managed care executives (n=77).
- While 80% generic penetration overall is projected by managed care survey respondents by 2020, up from 78% projected for 2017 (n=76), generic penetration of the eye care category is expected to average 72% by 2020, up from 68% in 2017 (n=75).
- The portion of the pharmacy budget spent on eye care by Medicare plans is expected to grow to 10% by 2020, up from 9% estimated for 2017 (n=46). That portion spent by commercial plans is expected to grow to 9% by 2020, up from 8% in 2017 (n=46).
- When a generic drug enters any therapeutic class, most managed care respondents will shift brand coverage to a higher formulary tier, 64%, and enforce generic substitution at next refill, 57% (n=77).
- Clinical efficacy edges out cost as the top factor in evaluating new drugs, with a rating of 4.7 on a 5-point scale, followed by acquisition cost and annual cost of treatment, both with a rating of 4.5 (n=78).
- Managed care executives are aware of implantable and injectable eye care products on the market.
- Dry eye is recognized as a chronic, progressive disease, with a rating of 3.9 on 5-point scale (n=78).

- Managed care executives find prior authorization to be most effective to manage utilization of eye care products, with a rating of 4.3 on 5-point scale, although it can be costly to implement, followed by generic substitution, 4.2, and step therapy, 4.1 (n=67).
- The most important factors health plans consider in developing adherence programs are pharmacy costs and patient outcomes, both with a rating of 4.3 on a 5-point scale, say managed care respondents (n=78).
- Eye care professionals infrequently know the cost of patients' eye care medications and co-pay amounts, with ratings of 2.4 and 2.6 on a 5-point scale, respectively, say managed care respondents (n=78).
- A total of 31% of managed care respondents see optometrists currently assuming a primary care role in the delivery of eye care (n=76). Another 31% see optometrists assuming such a role within five years.
- Looking ahead, managed care respondents listed 65 primary challenges in the eye care category, nearly all related to reining in costs. Potential solutions to rising costs proposed include: more use of prior authorization and step edits; use of treatment pathways; biosimilars; and an expanded role for optometrists.

PART I

The Ophthalmologist Perspective

Demand for ophthalmology services continues to be strong, fueled by the aging of the population and the baby boomer generation. Meanwhile, ophthalmologists face a variety of challenges, including declining reimbursements, practice consolidation, government regulation, and a looming shortage within their ranks. An emerging practice model spearheaded by the Centers for Medicare and Medicaid Services (CMS) is shifting the focus of care and reimbursement from procedures to outcomes. There are also new opportunities. A shortage of ophthalmologists and increased demand for services are spurring closer ties and partnerships with optometrists.

These were among the findings of a survey of ophthalmologists in Part I: The Ophthalmologist Perspective in *The Eye Care Trend Report, Volume III*. A total of 102 ophthalmologists responded to the survey.

Three ophthalmologists were interviewed to interpret the survey results and provide commentary:

- **Richard A. Adler**, MD, Ophthalmologist at Belcara Health, Baltimore, MD
- **Ronald L. Gross**, MD, Professor and Jane McDermott Shott Chair of Ophthalmology, West Virginia University Eye Institute, Morgantown, WV
- **Steven T. Simmons**, MD, Associate Clinical Professor of Ophthalmology, Albany Medical College, and Director, Glaucoma Consultants of the Capital Region, Albany, NY

More than half of ophthalmologist survey respondents, 54%, specialize in cataract surgery. Another 32% specialize in diseases of the cornea, followed by refractive surgery, 26%, glaucoma, 24%, and retina disease, 20% (n=96) (chart not shown).

Diagnosis and treatment of eye disease, not including surgeries, account for 38% of practice revenue of survey respondents (n=100) **(Figure 1)**. Next are surgeries for eye disease, 23%, followed by vision services, 18%.

"Glasses are the purview of optometrists," says Steven T. Simmons, MD, of Albany Medical College.

"Ophthalmologists are doing far fewer refractions and fitting of contact lenses than they used to do," says Richard A. Adler, MD, of Belcara Health. "The emphasis today is on medical services and surgery. We are seeing greater collaboration with optometry. We are also seeing less refractive surgery.

"Cataract surgeons are more likely to seek efficiencies in their practice and to co-manage patient care with optometrists. They have also seen steep cuts in reimbursement," notes Dr. Adler.

"Most revenue is coming from nonsurgical services while reimbursement for cataract surgery has declined," agrees Ronald L. Gross, MD, of West Virginia University Eye Institute.

Practice revenue from diagnosis and treatment of eye disease is unchanged from last year, according to 51% of responding ophthalmologists (n=101) (chart not shown). Practice revenue from surgeries increased for 42% of survey respondents.

"While 42% say revenue from surgeries for eye disease has increased, 28% saw a decrease. This is because revenue growth has been increasing only for premium cataract surgery that includes intraocular lenses," explains Dr. Adler.

"Ophthalmologists are busier doing surgery," says Dr. Simmons, "including surgery involving cataracts, glaucoma, and retina."

Of patients with ocular disease, 33% are being treated for cataracts, 28% for dry eye, and 24% for glaucoma,

according to survey respondents (n=102) **(Figure 2)**."Cataracts and dry eye disease make up the bulk of ophthalmology practice today. Ophthalmologists are not doing optometric work anymore," says Dr. Adler.

> "Ophthalmology is serving an aging population. This underscores the importance of partnering with optometry, which tends to bring in younger people and families."
>
> – Richard A. Adler, MD

Nearly half, 49%, of ophthalmologists responding to the survey are in single-specialty group practice, including general ophthalmology, ophthalmology subspecialties, and optometry (n=102) (chart not shown). Another 24% are in multispecialty group practice, with 23% in solo practice.

"Solo practice is on the decline," says Dr. Adler."We are seeing significant increases in specialty group practice, both single and multispecialty. I am in a practice that combines ophthalmology, dermatology, and plastic surgery. Everyone wants to get bigger. Factors driving this include complexity of regulations and billing, ability to negotiate higher reimbursement rates, and need for a social media presence," he explains.

Relationships with Health Plans

Reflecting an older patient population, Medicare is the dominant payer for ophthalmologist patient visits, accounting for 46%, say responding ophthalmologists (n=102) **(Figure 3)**. Next are commercial plans, 27%, followed by Medicaid, 11%.

Figure 1

Approximately what percentage of your practice revenue is derived from:

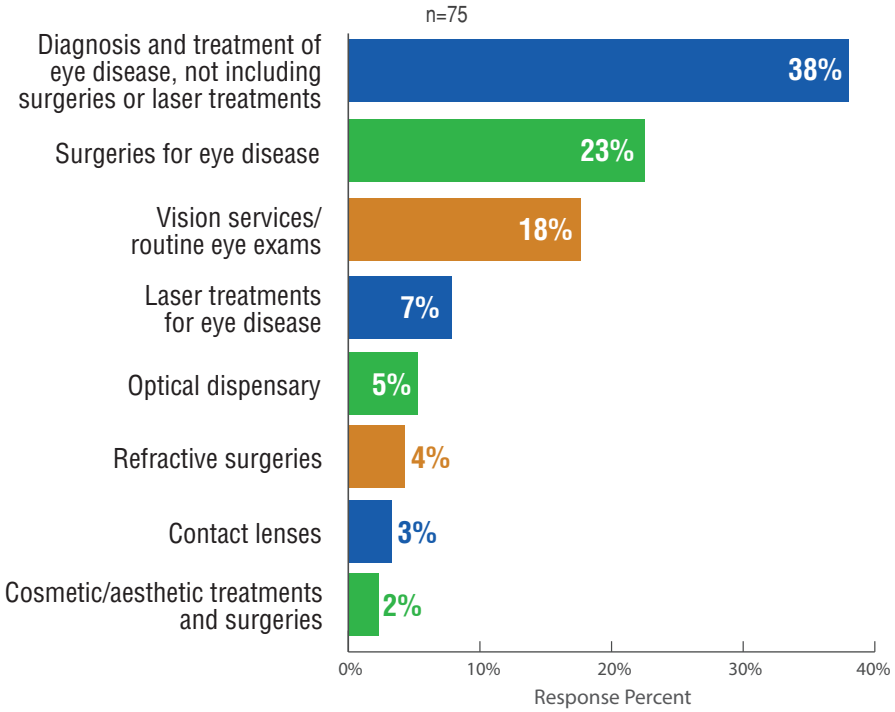
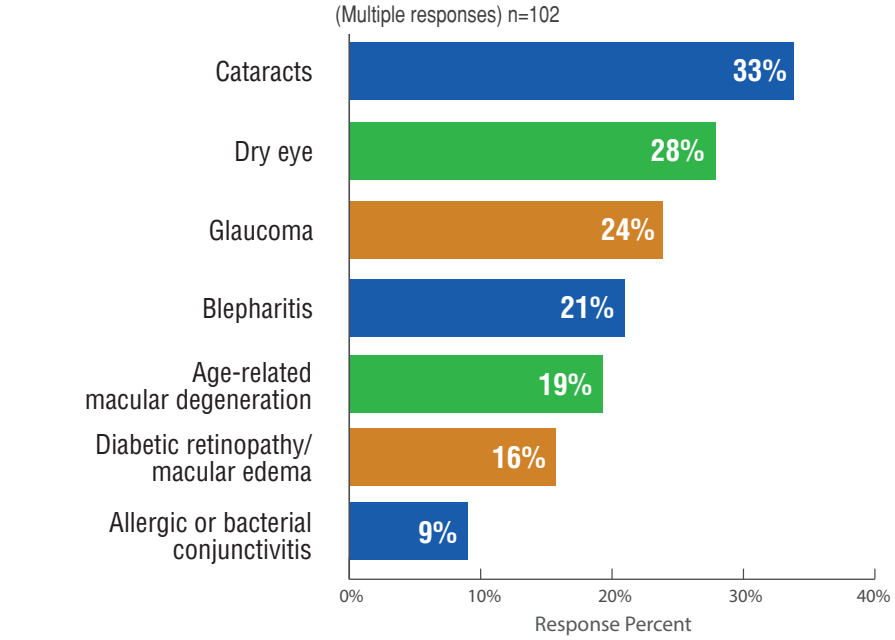


Figure 2

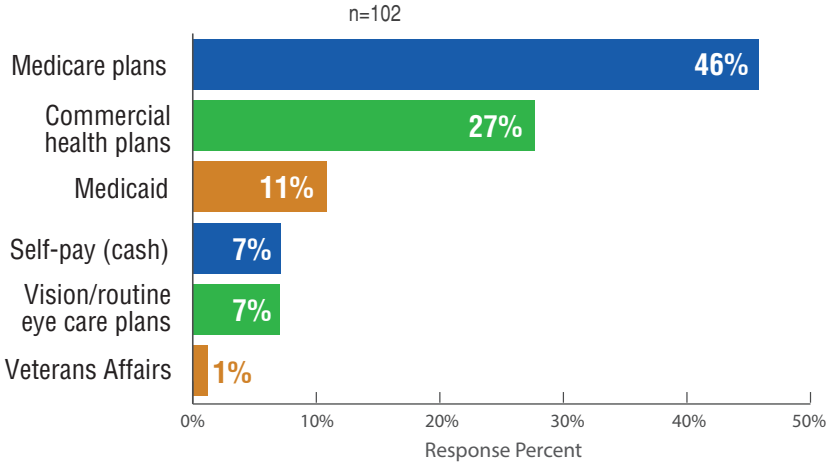
Of your patients with ocular disease, approximately what percentage of your patients is in treatment for the following conditions?



Patients may be receiving treatment for more than one condition.

Figure 3

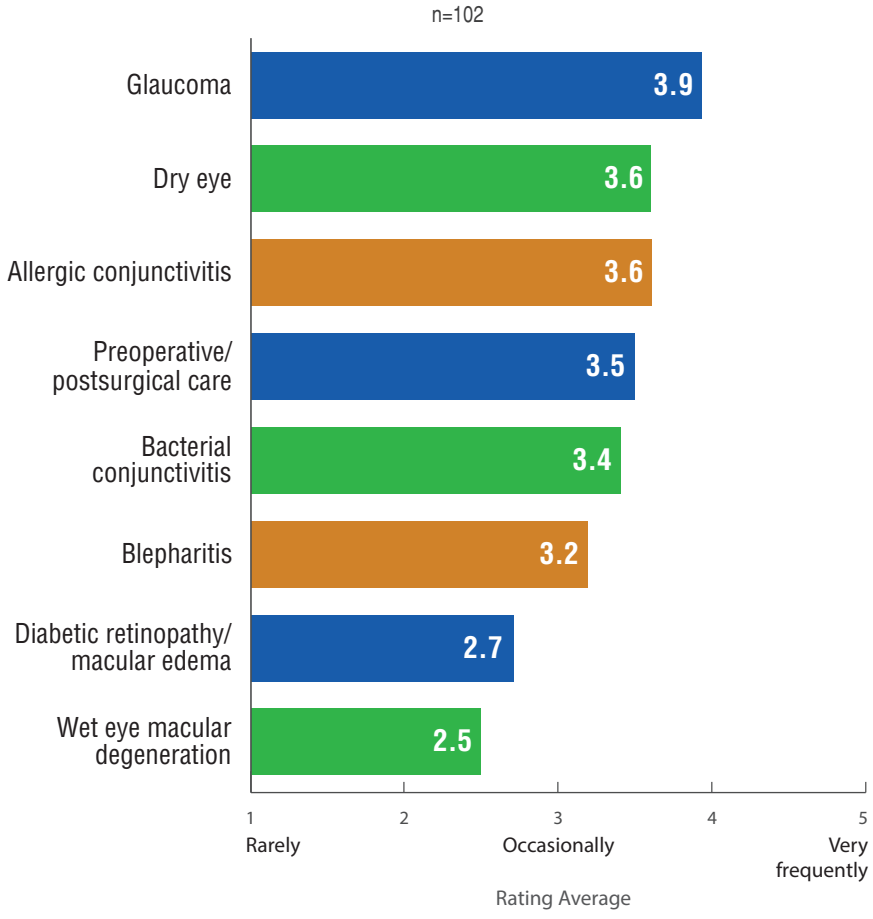
Approximately what percentage of your patient visits is reimbursed by each of these payers:



Percentages may not total 100% due to rounding.

Figure 4

Do Medicare health plans have formulary restrictions for pharmaceutical products used to treat the following ocular conditions?



Percentages were converted to ratings using a 5-point scale.

"In my practice, Medicare covers 75% of patient visits," says Dr. Simmons.

"Ophthalmology is serving an aging population," notes Dr. Adler. "This underscores the importance of partnering with optometry, which tends to bring in younger people and families."

All or the majority of both Medicare, 84% (n=102) (chart not shown), and commercial plans, 80% (n=101) (chart not shown), have formulary restrictions on products used to treat ocular conditions, say survey respondents. "Doctors perceive insurers as restricting their care," says Dr. Adler. "Younger doctors are more acclimated to having less control in the current practice environment," he adds.

"Medicare managed care plans," under which Medicare pays a fixed amount for care each month, "are more restrictive than regular Medicare plans," says Dr. Gross. Such restrictions may include more limited networks of providers or different rules for whether a referral is needed to see a specialist.

Products used to treat glaucoma most frequently have formulary restrictions by Medicare plans, with a rating of 3.9 on a 5-point scale, report survey respondents (n=102) **(Figure 4)**.

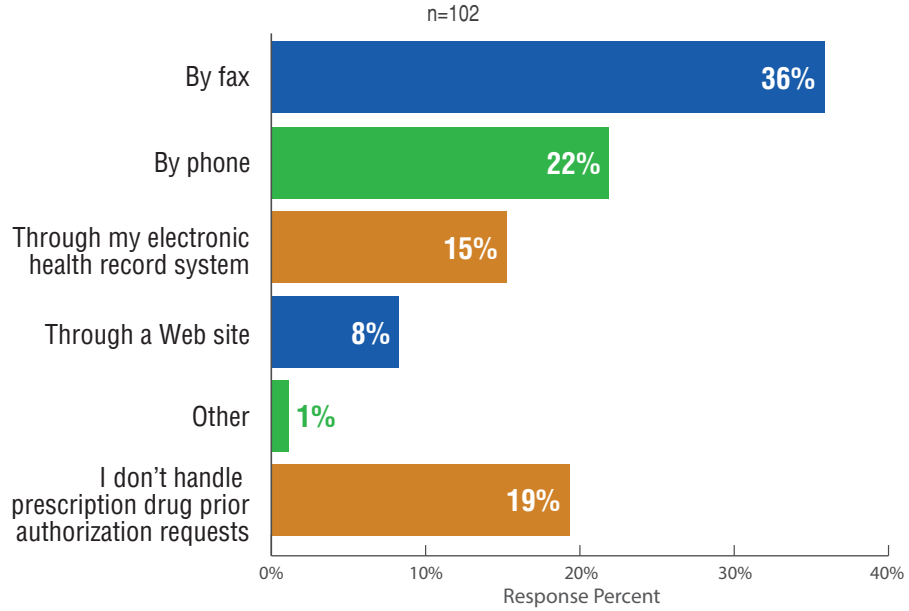
"I agree with the survey respondents that treatments for macular degeneration and diabetic retinopathy are least affected by formulary restrictions," says Dr. Simmons.

Health Record Systems

Asked to name the electronic health record (EHR) system used by the practice, survey respondents named 26 different systems, while 12 responded "none" (n=101) (chart not shown). "This shows how non-standardized these systems are," says Dr. Gross.

Figure 5

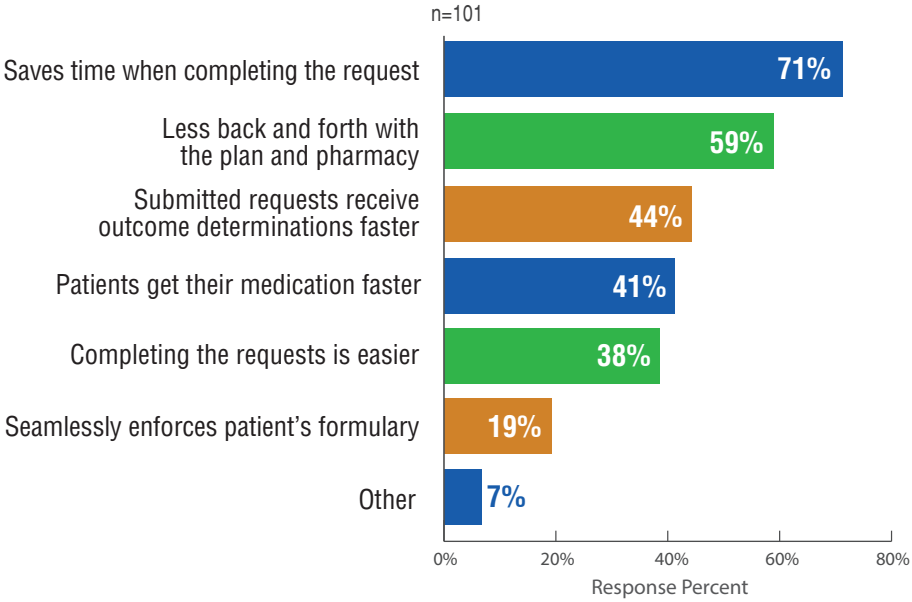
How do you most frequently handle prescription drug prior authorization requests?



Percentages may not total 100% due to rounding.

Figure 6

In your opinion, what are the greatest benefits of electronic prior authorization?



"There is no real leader. Most doctors probably wouldn't use an electronic health record system if they had a choice. The requirement to use an EHR system is part of the Affordable Care Act," notes Dr. Simmons.

Most responding ophthalmologists, 86%, can prescribe medications using their EHR system but only 27% can complete a prior authorization request using their system (n=101) (chart not shown).

Prior authorization requests are most often handled by fax, 36%, or by phone, 22% (n=102) **(Figure 5)**.

The biggest benefit of electronic prior authorization (ePA) is that it saves time when making the request, say 71% of survey respondents (n=101) **(Figure 6)**. There are other efficiencies as well.

Even still, responding ophthalmologists shared some complaints about the ePA process, including: time-consuming; time uncompensated; lack of compatibility between systems; and often a phone call is still required (n=97) (chart not shown).

New Therapies

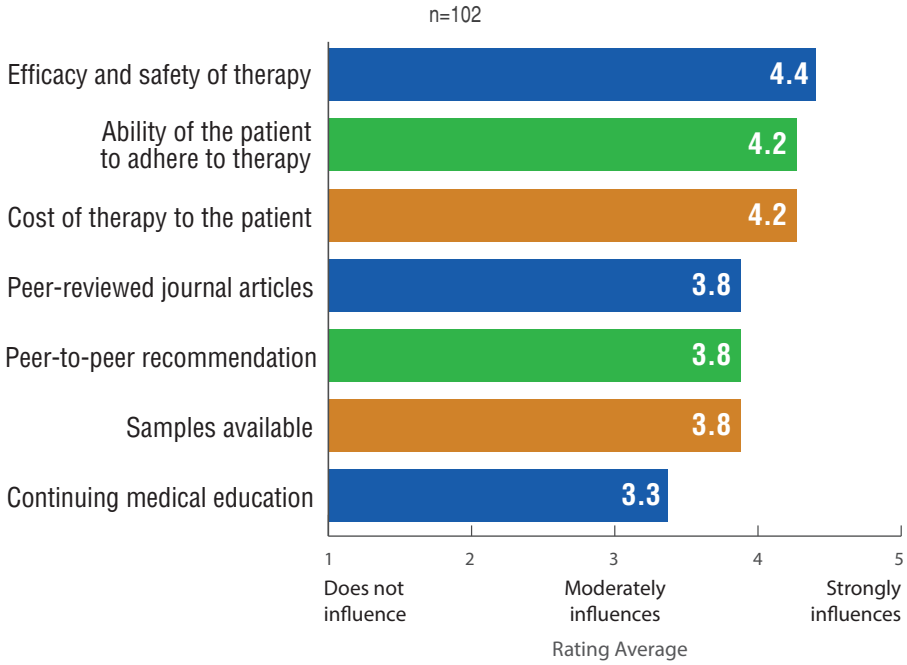
The top external factors influencing acceptance of a new therapy are: efficacy and safety, 4.4 rating on a 5-point scale; patient adherence, 4.2; and cost of therapy, 4.2 (n=102) **(Figure 7)**.

"Efficacy and safety of therapy are the biggest drivers for new products, with cost listed appropriately," says Dr. Simmons. "Peer recommendations are also important, more so than journal articles in my opinion."

"Cost is right after efficacy and safety and adherence, where I would expect it. Cost is an important consideration," says Dr. Adler.

Figure 7

Please state how strongly the following external factors influence your acceptance or use of a new therapy:



Percentages were converted to ratings using a 5-point scale.

"Drug performance drives acceptance," says Dr. Gross.

Responding ophthalmologists acknowledge that only occasionally do they know either the total cost of prescribed medications or out-of-pocket costs, with ratings, respectively, of 3.0 and 2.9 on a 5-point scale (n=102) (chart not shown).

Generics and Brands

Ophthalmologist survey respondents agree most strongly that eye drops combining two drugs simplify dosing, with a rating of 4.5 on a 5-point scale (n=101) **(Figure 8)**.

"I will write for fixed combination eye drops," say Dr. Gross. "Only sometimes do I get pushback either from the patient or the plan," he adds.

Ophthalmologist respondents disagree strongly that non-active eye drop ingredients make no difference in effectiveness and tolerability, with a low rating average of 2.0 on a 5-point scale.

Generic drugs are seen as beneficial for patients with a 3.3 rating on a 5-point scale but receive only a 2.5 rating as being fully equivalent to brand-name medications.

"The responses on generic drugs seem low," according to Dr. Adler. "Doctors will readily recommend generics to patients for whom cost is an issue. Also, the FDA requires that the active ingredients be the same."

According to the FDA, a generic drug is identical—or bioequivalent—to a brand-name drug in dosage form, safety, strength, route of administration, quality, performance characteristics, and intended use. (The FDA was not included in this research.)[1]

"While generics can benefit patients by costing less, generics can differ from brands," says Dr. Gross. "Non-active ingredients can make a difference and prescribers may not even be aware when a substitution has been made."

Treating Glaucoma

For glaucoma patients, medications are preferable to surgery if intraocular pressure (IOP) is maintained and patient tolerates treatment, according to survey respondents, with a rating of 4.3 on a 5-point scale (n=102). **(Figure 9)**

Responding ophthalmologists overwhelmingly select prostaglandin analogues as first-line therapy for open-angle glaucoma, with 79% of responses (n=102) (chart not shown).

Beta blockers are selected as second-line therapy by 36% of responding ophthalmologists, followed by combination eye drops, 16%; selective laser trabeculoplasty, 15%; and alpha-adrenergic agonists, 14% (n=102) (chart not shown).

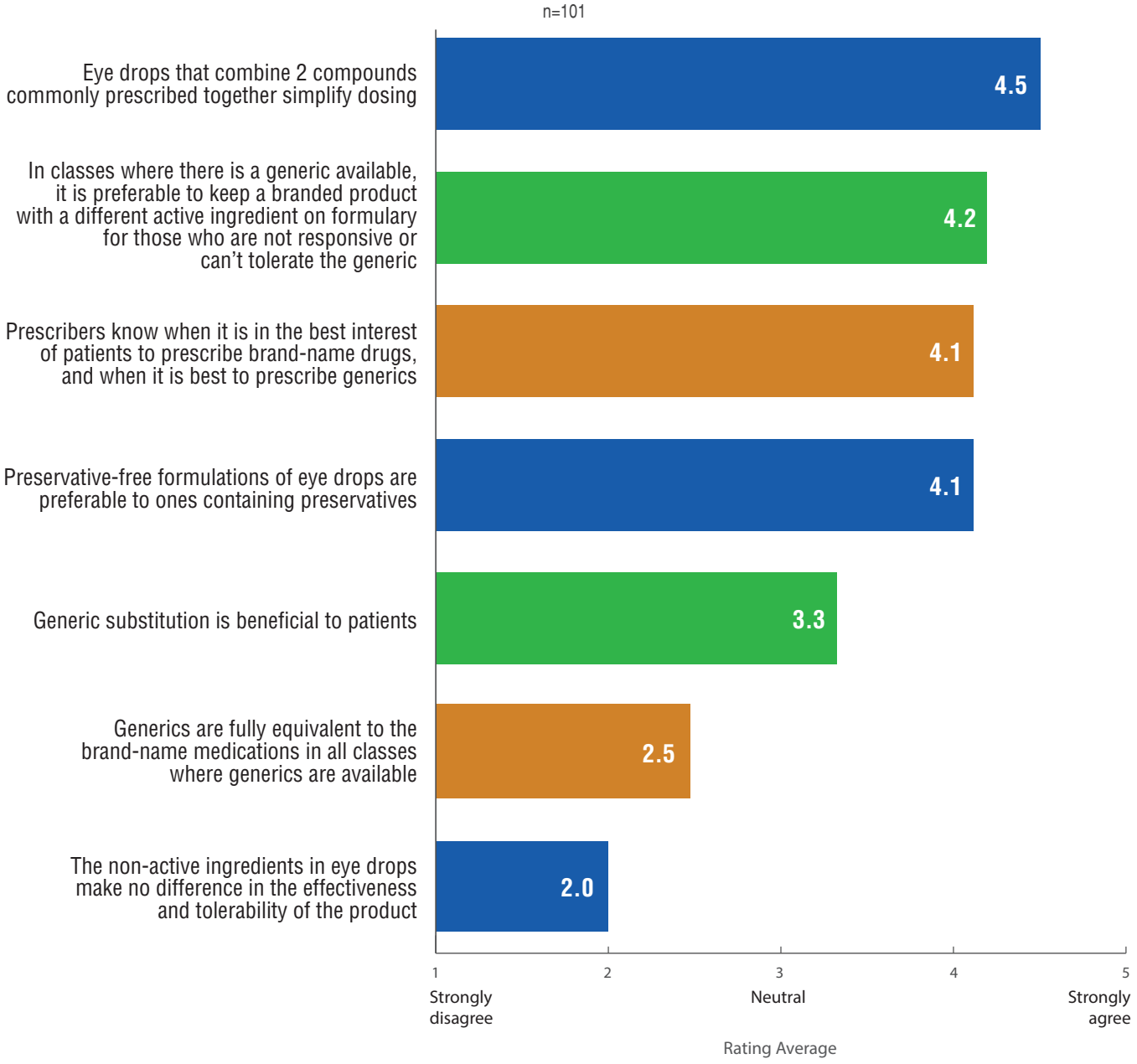
"Doctors prefer to add another drop rather than do a procedure. They prefer a beta blocker as second-line treatment, saving combination drops in case single drops don't work," says Dr. Adler.

"Many doctors will refer patients to subspecialists once they've exhausted eye drop options. Influencing this are medical-legal pressures, which encourage the trend toward specialization and smaller scopes of practice. The jack-of-all trades ophthalmologist is disappearing," says Dr. Adler.

Ophthalmologists are aware of the implantable and injectable ocular drugs in development, with a rating of 4.0 on a 5-point scale (n=102) **(Figure 10)**.

Figure 8

What is your perception of generics and brands?

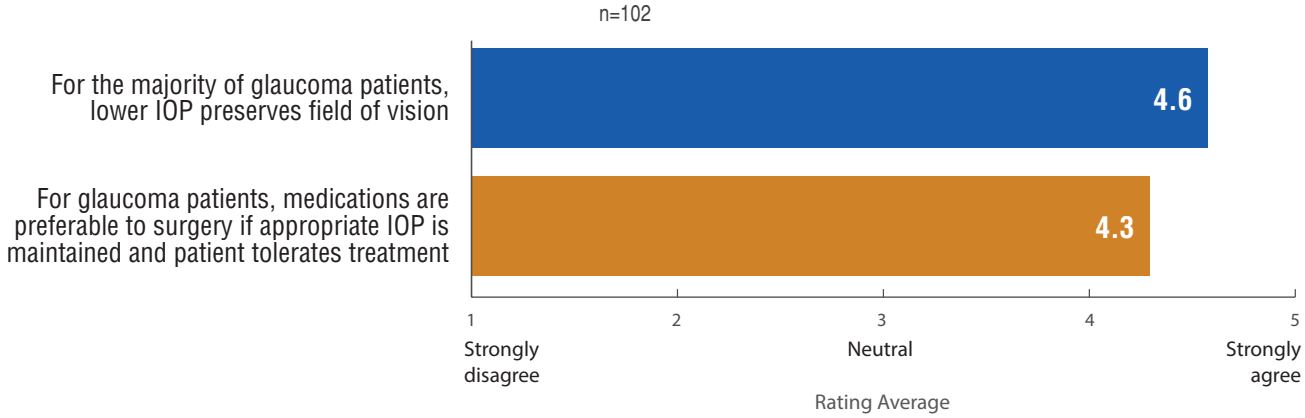


Percentages were converted to ratings using a 5-point scale.

According to the FDA, a generic drug is identical—or bioequivalent—to a brand-name drug in dosage form, safety, strength, route of administration, quality, performance characteristics, and intended use. (The FDA was not included in this research.)[1]

Figure 9

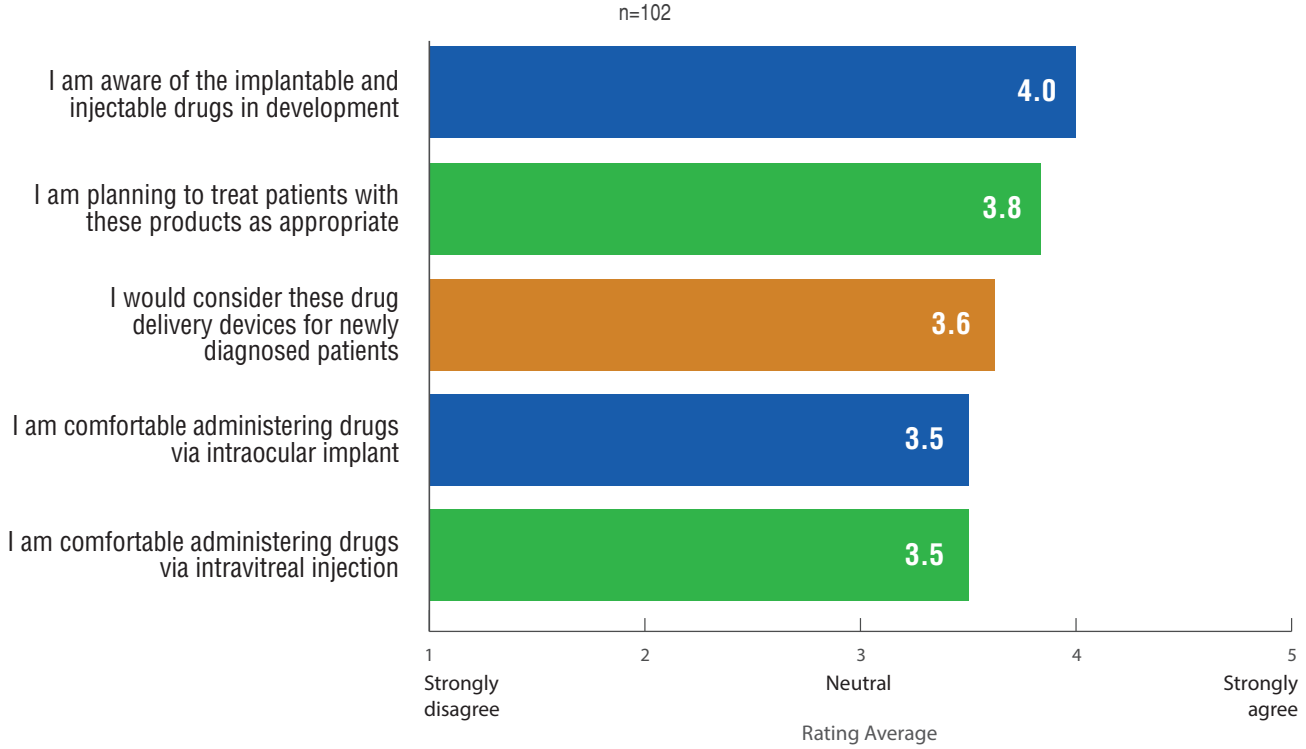
What is your perception of glaucoma treatments?



Percentages were converted to ratings using a 5-point scale.

Figure 10

Please let us know your opinion about implantable and injectable sustained-release drugs by stating how strongly you agree or disagree with the following statements:

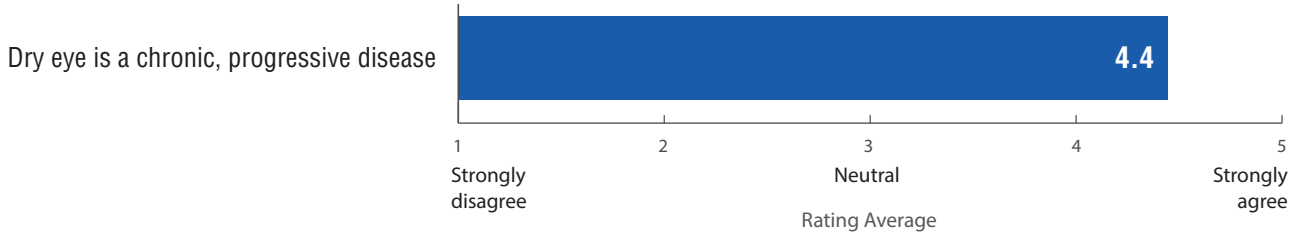


Percentages were converted to ratings using a 5-point scale.

Figure 11

Please state how strongly you agree or disagree with the following statement about dry eye:

n=102



Percentages were converted to ratings using a 5-point scale.

Dry Eye Disease

Survey respondents agree that dry eye is a chronic, progressive disease, with a rating of 4.4 on a 5-point scale (n=102) **(Figure 11)**.

Nearly a third perceived dry eye as a "disease" or "handicap" in an online study of 706 people with dry eye in France, Germany, Italy, Spain, and the United Kingdom. They report needing to wear sunglasses, avoiding air conditioning, and having trouble reading books and viewing screens. The researchers conclude that better descriptions of symptoms are needed so that patients with dry eye can be diagnosed sooner.[2]

"There is a growing trend to see dry eye disease as increasingly prevalent, important, and undertreated," says Dr. Adler. "As doctors recognize the inflammatory basis for dry eye, they will use anti-inflammatory medications more."

Artificial tears are used by 89% of respondents' patients, either alone or in combination with other therapies (n=102) (chart not shown).

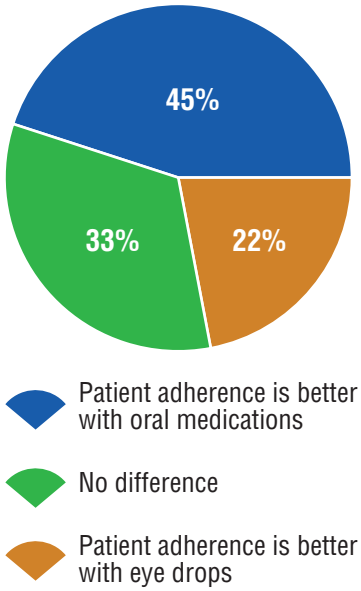
Patient Adherence

Patient adherence is better with oral medications than with eye drops, according to 45% of survey respondents (n=102) **(Figure 12)**. One-third say there is no difference.

Figure 12

In your opinion, how does patient adherence for eye drops differ from adherence for oral medications?

n=102



"I believe that compliance is better with oral medications. Instilling drops is seen by patients as more intrusive," says Dr. Adler.

"Patients' understanding of disease is very important. Patients need to know why they are taking a medication," says Dr. Gross. He adds: "The more complex the regimen, the more drops and the less chance each drop gets in the eye."

Ophthalmologists estimate that 77% of eye drop instillations are successfully administered to the eye, 31% of eye drops are wasted, and 27% of patients run out of eye drops before their refill date (n=102) (multiple responses allowed; chart not shown).

"More than 31% are wasted. Many patients complain that they run out of drops," says Dr. Gross. "Some plans won't allow early refills."

Nearly all survey respondents, 92%, monitor adherence by asking the patient (n=101) (chart not shown). Dr. Gross suggests that doctors ask patients to describe their treatment regimen to make sure they understand it.

"Pharmacies and health plans can track refills easier than prescribers, who typically don't know whether a prescription was picked up," says Dr. Simmons.

Some plans do provide patient adherence data, according to 27% of respondents (n=102) (chart not shown). "Such information from plans based on refill rates could be helpful," says Dr. Gross.

Planning for the Future

A total of 62% of responding ophthalmologists say they participate in the IRIS (Intelligent Research in Sight) clinical registry developed and

managed by the American Academy of Ophthalmology (AAO) (n=101) (chart not shown). The goal of IRIS, according to the AAO, is continuous improvement in the delivery of eye care.

The top reason given by 39% of survey respondents for joining IRIS is to avoid penalties imposed by the CMS (n=85) (chart not shown). Reasons given for not participating in IRIS include: cost; don't know much about it; complicated setup; and uncertain benefit.

"The registry has nothing to do with improving quality of care," says Dr. Simmons. "For the registry, a technician simply answers a series of questions. It does not include teaching patients. What would improve care would be to encourage primary care physicians to tell their patients to visit an ophthalmologist for an annual examination. Then we could provide feedback if the patient is found to have diabetic retinopathy, for example."

Only 35% of responding ophthalmologists say it is likely that participation in the IRIS registry will lead to improved clinical outcomes within five years (n=98) **(Figure 13)**. Dr. Gross is more optimistic: "I think it has potential for the future," he says.

More than two-thirds, 69%, of survey respondents believe there will be a shortage of ophthalmologists within 10 years (n=100) **(Figure 14)**. One respondent comments: "As reimbursements go down, the profession will become less attractive for the amount of time and effort invested."

Will optometrists become the "primary care providers" for eye care? Forty-three percent of ophthalmologists say no while 19% think they already are (n=102) **(Figure 15)**.

"I expect that ten years from now, 50% of glaucoma patient care will be provided by optometrists," predicts Dr. Simmons. "There will not be enough ophthalmologists, with retirements and influx of part-time ophthalmologists."

"These mixed results on how ophthalmologists view an expanded role for optometrists reflect an age split," suggests Dr. Adler. "Younger ophthalmologists are more open to partnering with optometrists and delegating certain tasks to them, such as vision exams and fitting of contact lenses. The future portends closer ties with optometrists and greater specialization for ophthalmologists."

Figure 13

In your opinion, how likely is it that participation in IRIS will lead to improved clinical outcomes within 5 years?

n=98

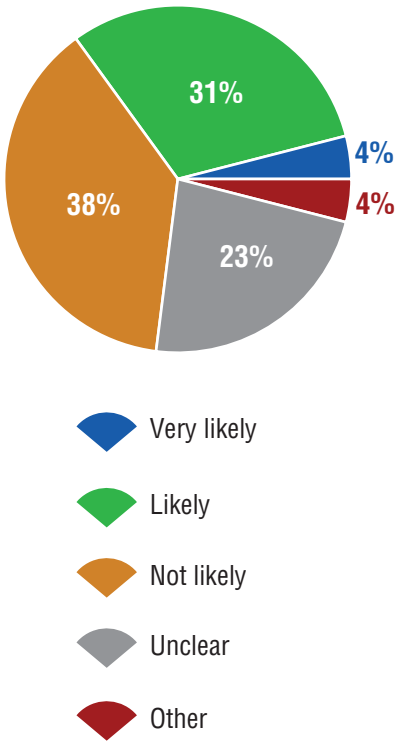


Figure 14

In your opinion, when will there begin to be a shortage of ophthalmologists?

n=100

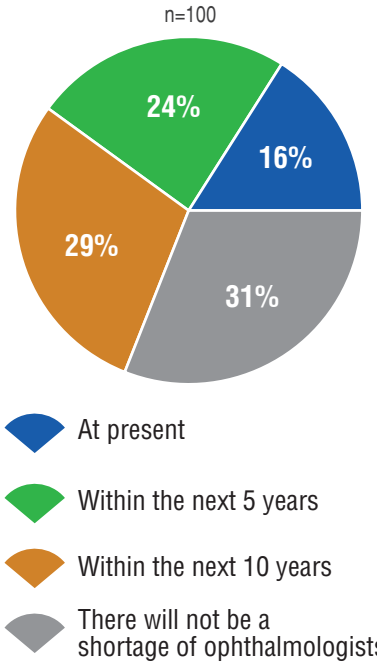
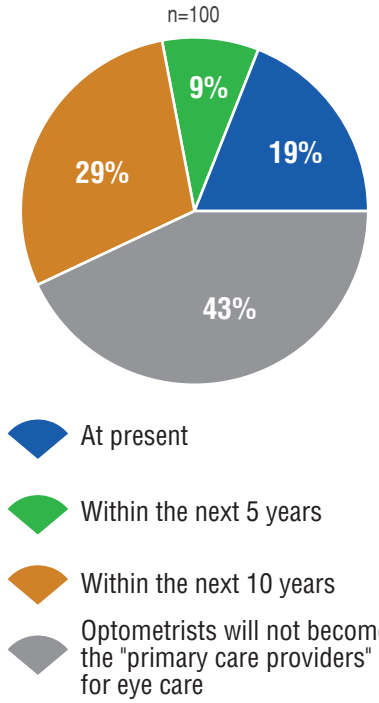


Figure 15

In your opinion, will optometrists become the "primary care providers" for eye care?

n=100



Challenges and Opportunities in Eye Care

Asked to list challenges or opportunities in eye care, 25 respondents cite declining reimbursements. Other challenges receiving multiple responses include cost containment, aging of the population, shortage of ophthalmologists, and turf battle with optometrists. One respondent says: "Patient education is needed on MD versus OD eye care providers." Other challenges include dealing with new payment models and keeping up with new technology.

"Ophthalmologists and optometrists need to take time to fight for the medical treatment they think is best for their patients. Apathy is growing," says Dr. Simmons. "Patient care is being directed by pharmacy technicians at managed care organizations from across the country."

"There will be consolidation in eye care, more multispecialty practices," says Dr. Gross. "We will see more cost containment and greater use of clinical pathways. Outcomes and value will drive treatment decisions to a greater extent. Accountable care organizations will focus on complete care of the diabetes patient, for example, not just on diabetic retinopathy.

"I hope to see more partnerships with optometrists. Ophthalmology needs optometry because there aren't enough ophthalmologists to provide needed care," adds Dr. Gross.

PART II

The Optometrist Perspective

Optometrists increasingly diagnose and treat glaucoma and dry eye and co-manage surgical patients with ophthalmologists and ophthalmology subspecialists as well as provide vision services. Optometrists are well positioned to expand further into medical services to meet the growing needs of the baby boomers and an aging population. Among the challenges facing the profession are online competition for eye exams and vision care products, declining reimbursements from vision care plans and health plans, and transition to a value-based reimbursement system for medical services.

These were among the issues examined in a survey of optometrists in Part II: The Optometrist Perspective of *The Eye Care Trend Report, Volume III*. A total of 71 optometrists responded to the survey.

Four optometrists were interviewed to interpret the survey findings and provide commentary:

- **Marc Bloomenstein**, OD, FAAO, Schwartz Laser Eye Center, Scottsdale, AZ
- **Josh Johnston**, OD, FAAO, Georgia Eye Partners, Atlanta, GA
- **Paul Karpecki**, OD, FAAO, Kentucky Eye Institute, Lexington, KY
- **John Rumpakis**, OD, MBA, President and CEO, Practice Resource Management, Inc., Lake Oswego, OR

Routine vision services account for 42% of optometry practice revenue, followed by optical dispensary, 23%, contact lenses, 17%, and diagnosis and treatment of eye disease, 16% (n=71) **(Figure 16)**, according to optometrists responding to the survey.

Showing the most revenue growth over last year is diagnosis and treatment of eye disease, with a rating average of 2.5 on a 3-point scale (n=70) **(Figure 17)**.

Figure 16

Approximately what percentage of your practice revenue is derived from:

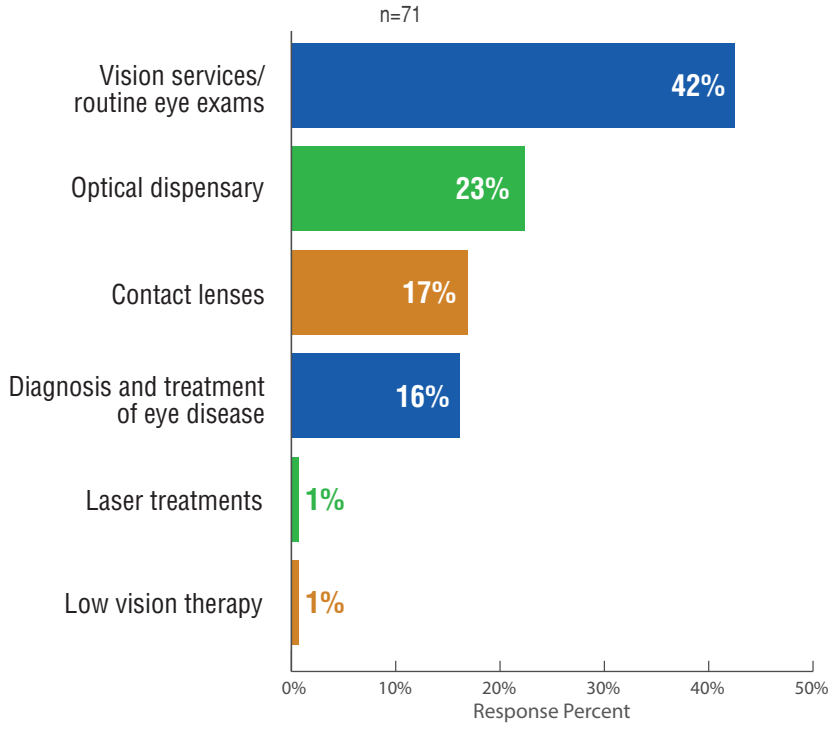
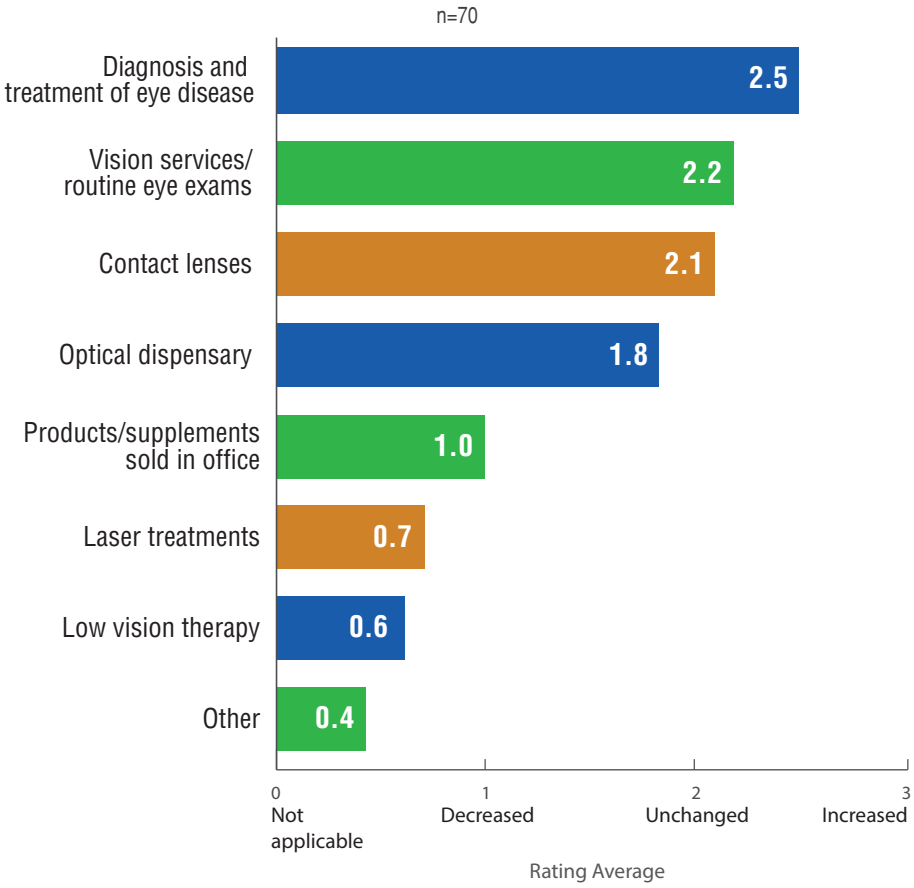


Figure 17

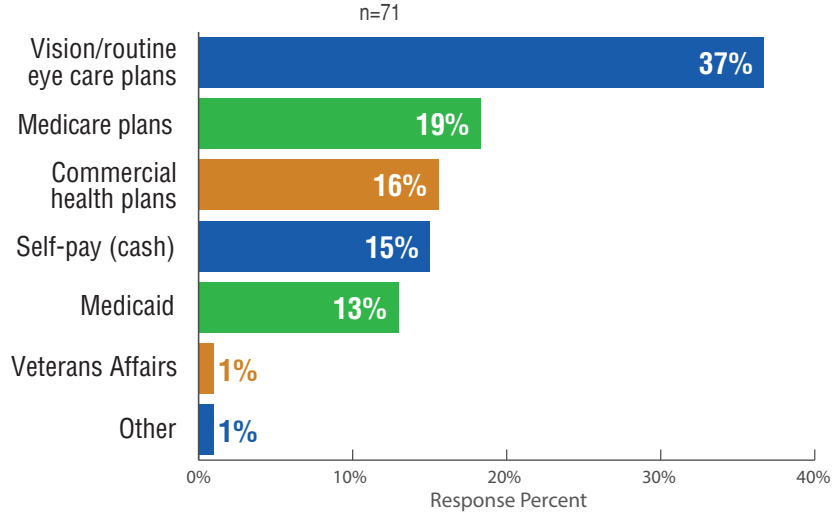
How has practice revenue changed from last year for each of these categories?



Percentages were converted to ratings using a 3-point scale.

Figure 18

Approximately what percentage of your patient visits is reimbursed by each of these payers?



Percentages may not total 100% due to rounding.

"Optometrists are providing more medical services. I am glad to see this," says Paul Karpecki, OD, of the Kentucky Eye Institute. "With many ophthalmologists focusing on surgery, a potential shortage of ophthalmologists, and demand for eye care increasing, this trend will continue."

"The profession of optometry needs to expand further into medical services in order to progress," says Josh Johnston, OD, of Georgia Eye Partners. "Technology is disrupting traditional practice and reimbursements under vision care plans continue to erode. In our group there has been an increase in shared care with ophthalmologists for nonsurgical conditions, including glaucoma and dry eye."

> "The profession of optometry needs to expand further into medical services in order to progress."
>
> – Josh Johnston, OD

"There is a widening gap between the number of ophthalmologists coming into the system (462 ophthalmology residency positions were filled as of January 2017)[3] increasing demand for eye care services with the influx of the baby boomers. Optometrists have a prime opportunity for providing medical services," says John Rumpakis, OD, MBA, of Practice Resource Management.

Vision care plans account for the largest share of optometrist patient visits reimbursed with 37% (n=71) **(Figure 18)**. Only 19% of patient visits are reimbursed by Medicare plans, followed by commercial plans, 16%, self-pay, 15%, and Medicaid plans, 13%, report survey respondents. Four survey respondents indicate that

Figure 19

What portion of your patients' Medicare health plans have formulary restrictions on products used to treat ocular conditions?

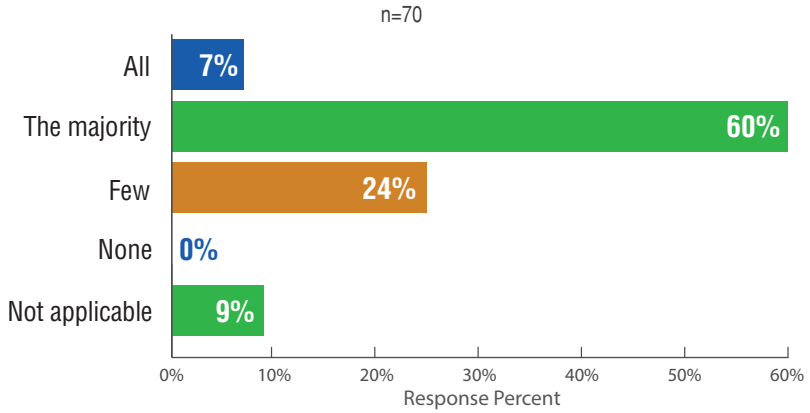
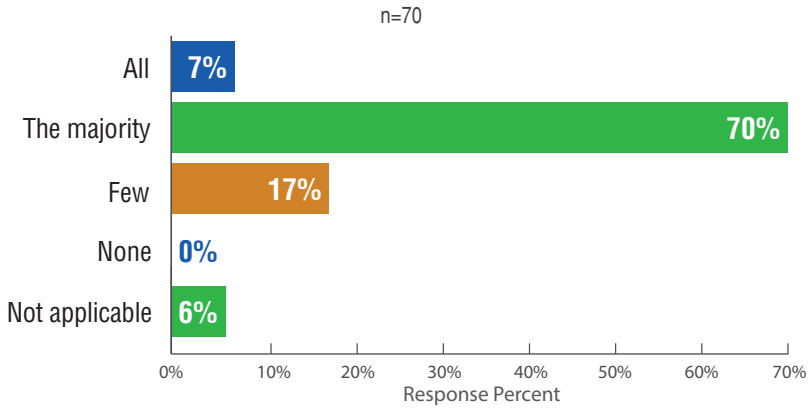


Figure 20

What portion of your patients' commercial health plans have formulary restrictions on products used to treat ocular conditions?



participation in government-sponsored and commercial plans is not worth "the hassle."

> "Working with ophthalmology subspecialists, optometrists can assume a primary eye care role." – Paul Karpecki, OD

"Reimbursement rates under vision care plans remain low," says Dr. Karpecki. "Although reimbursement by medical plans is more than twice that under vision care plans for similar services," he explains, "it can be a difficult process to become credentialed as a medical provider. The percentage of self-pay will likely increase due to higher co-pays," he adds.

"Optometrists need to focus more on higher-reimbursing Medicare and commercial plans," says Dr. Johnston. "Completion of the credentialing process is complex but it can be outsourced."

"We are moving towards an outcomes-based health care system, in which we will be evaluated based on how efficient and effective we can be, and how we can reduce costs and increase quality," says Dr. Rumpakis.

Health Plan Policies

Survey respondents say 67% of all or the majority of patients' Medicare plans have formulary restrictions on products used to treat ocular conditions (n=70) **(Figure 19)**. The percentage is higher for commercial plans at 77% (n=70) **(Figure 20)**. "Plans are more restrictive than in years past," says Dr. Johnston.

"We are seeing patients on long-standing treatments being switched to different medications by payers," says Marc Bloomenstein, OD, Schwartz Laser Eye Center.

> "Optometrists need to focus more on higher-reimbursing Medicare and commercial plans."
>
> – Josh Johnston, OD

Medicare plans most often have formulary restrictions for ocular medications used to treat patients with dry eye, followed by allergic conjunctivitis and glaucoma, with ratings of 3.5, 3.4 and 3.3, respectively, on a 5-point scale (n=67) **(Figure 21)**.

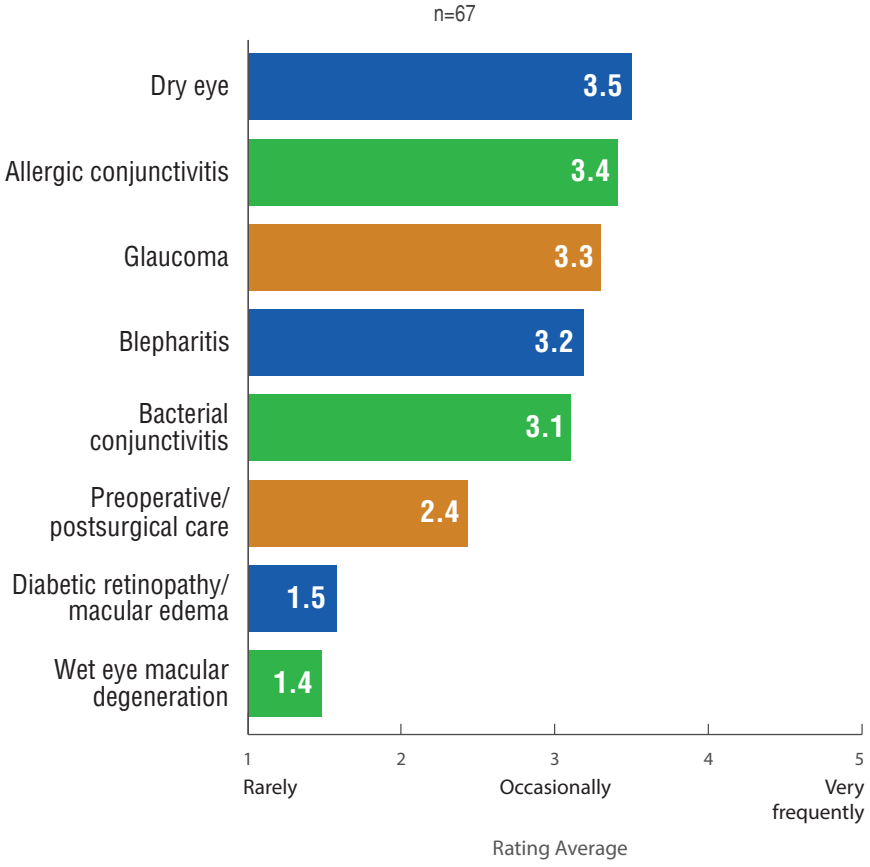
"With newer medications, we are seeing more formulary restrictions," says Dr. Bloomenstein.

"Survey respondents complain about formulary restrictions in dry eye disease yet most indicate later in the survey they recommend artificial tears as first-line therapy," notes Dr. Rumpakis.

Prior authorization (PA) requests continue to be mostly handled via fax, 41%, or phone, 34%, according to optometrist survey respondents (n=71) **(Figure 22)**.

Figure 21

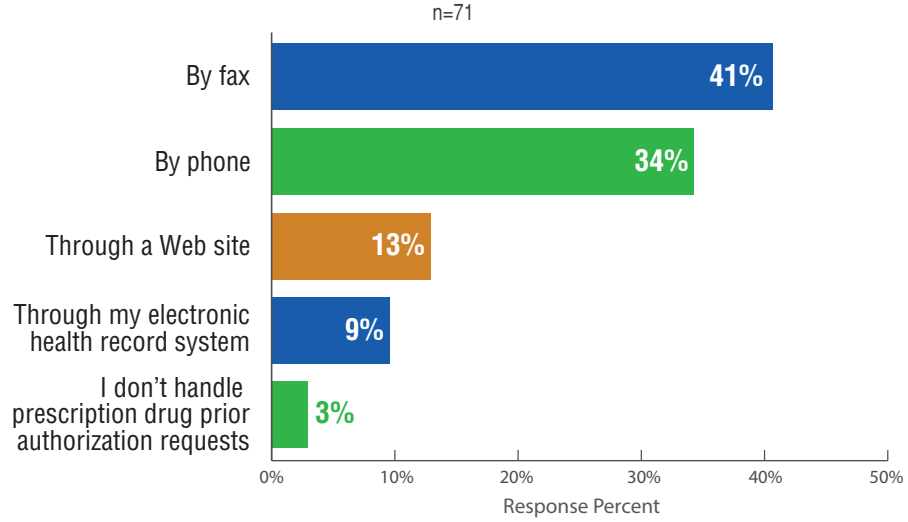
If you contract with Medicare health plans, how frequently do they have formulary restrictions for pharmaceutical products used to treat the following ocular conditions?



Percentages were converted to ratings using a 5-point scale.

Figure 22

How do you most frequently handle prescription drug prior authorization requests?



"We are starting to see doctors move away from faxes in favor of Web sites and health records," says Dr. Bloomenstein. "Optometrists should be using health record systems and other technology-based systems more to manage PA requests," says Dr. Rumpakis.

"The PA process seems to be more labor-intensive every year. The key is to delegate it to staff or outsource to an outside service and use technology to speed the process," says Dr. Johnston.

One-quarter of optometrist patient visits result in referral to either an ophthalmologist or ophthalmology subspecialist, say survey respondents (n=71) **(Figure 23)**. "We don't refer patients to other optometrists as much as we should," says Dr. Karpecki. "There are optometrists who specialize in certain areas, such as low vision therapy and dry eye," he explains.

For two-thirds of referred patients, optometrists continue to co-manage the patient's care (n=71) (chart not shown). "Working with ophthalmology subspecialists, optometrists can assume a primary eye care role," says Dr. Karpecki.

The most common reason for a referral is because the patient has cataracts, according to 60% of survey respondents (n=68) **(Figure 24)**. "It is good to see that optometrists are managing glaucoma patients rather than referring them," notes Dr. Johnston.

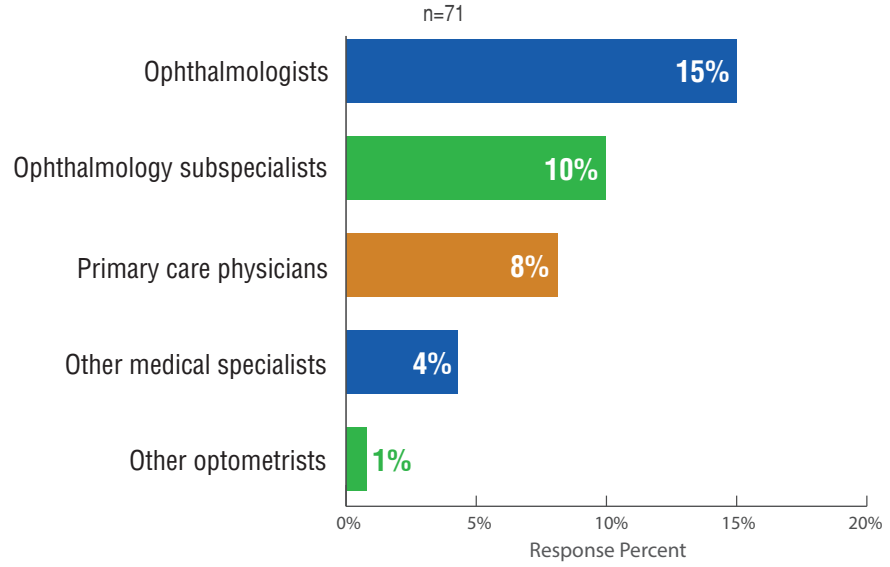
Generics Versus Brands

Responding optometrists strongly agree that combination products simplify dosing with a rating of 4.4 on a 5-point scale (n=71) **(Figure 25)**.

They strongly disagree that non-active ingredients in eye drops make no difference in effectiveness

Figure 23

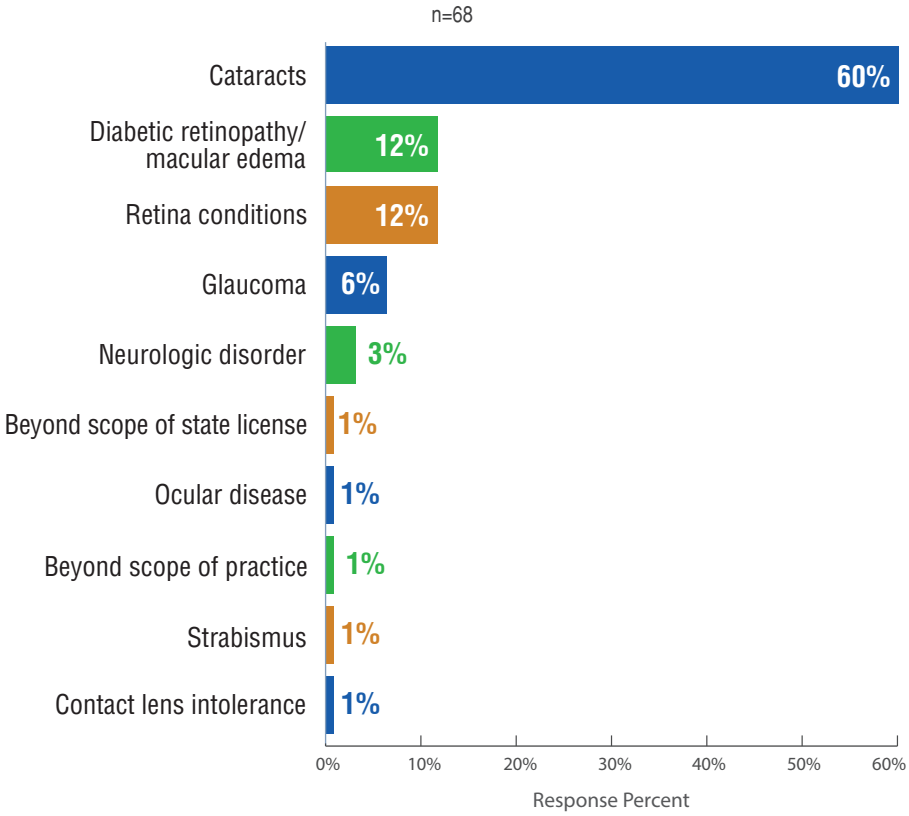
What percentage of your total patient visits are referred to:



The remaining 62% of patient visits were not referred.

Figure 24

What is the most frequent cause for the patient referral?



Percentages may not total 100% due to rounding.

and tolerability, with a low rating of 2.3.

The statement that generics are fully equivalent to brand-name medications garners a rating of 3.1 on a 5-point scale.

According to the FDA, a generic drug is identical—or bioequivalent—to a brand-name drug in dosage form, safety strength, route of administration, quality, performance characteristics, and intended use. (The FDA was not included in this research.)[1]

Glaucoma Treatment

"Future glaucoma treatment will be more surgically based rather than topical due to the combination of improved patient compliance and payment methodologies."

– John Rumpakis, OD, MBA

Responding optometrists agree that MIGS appears to be a promising treatment for glaucoma, with a rating of 4.0 on a 5-point scale (n=71) **(Figure 26)**.

"I would have expected more optometrists to see MIGS as a promising treatment for glaucoma. More education of optometrists about MIGS is needed," suggests Dr. Karpecki.

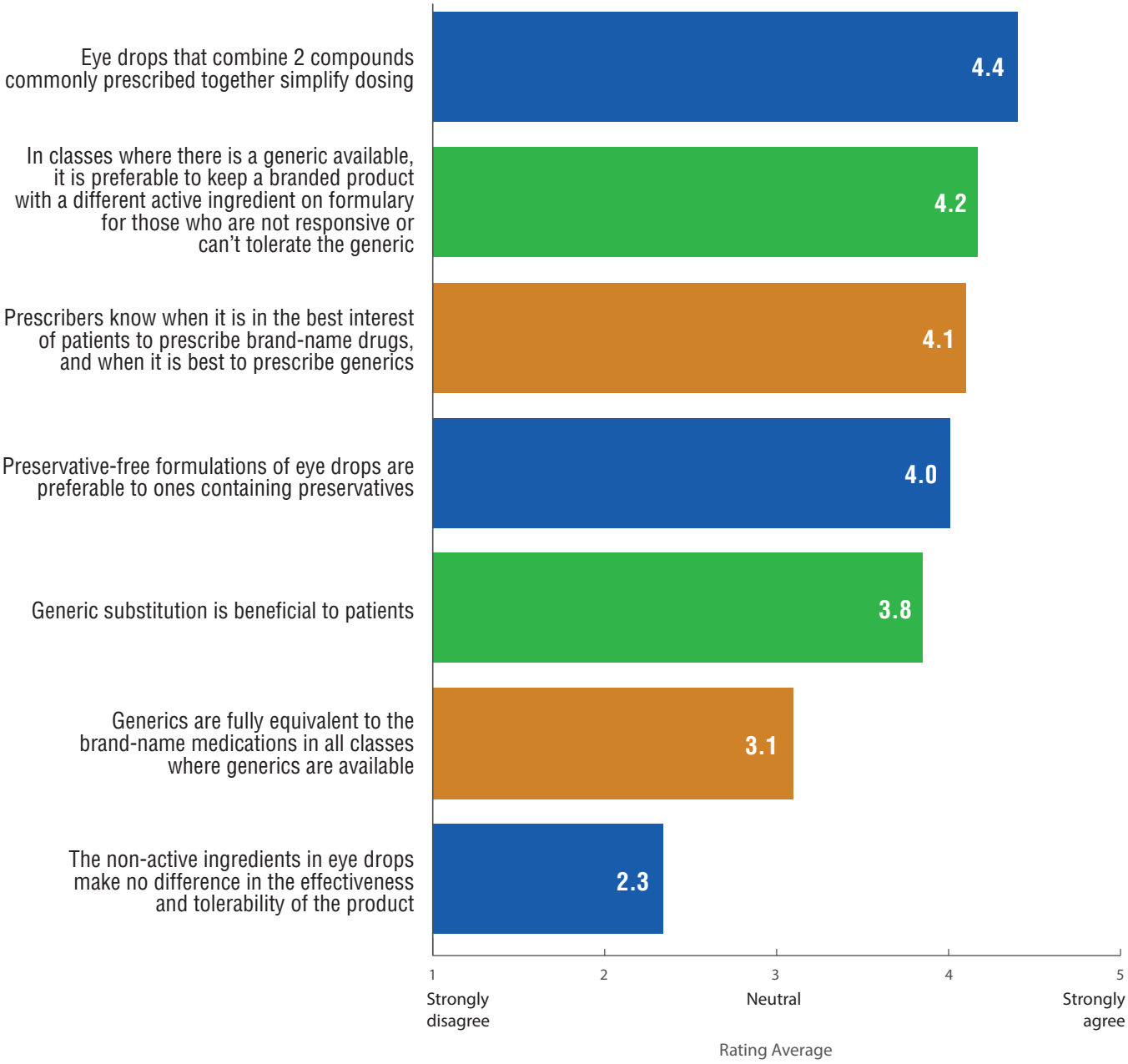
"Future glaucoma treatment will be more surgically based rather than topical due to the combination of improved patient compliance and payment methodologies," says Dr. Rumpakis.

Prostaglandin analogues are preferred first-line therapy for open-angle glaucoma, according to 74% of responding optometrists;

Figure 25

What is your perception of generics and brands?

n=71

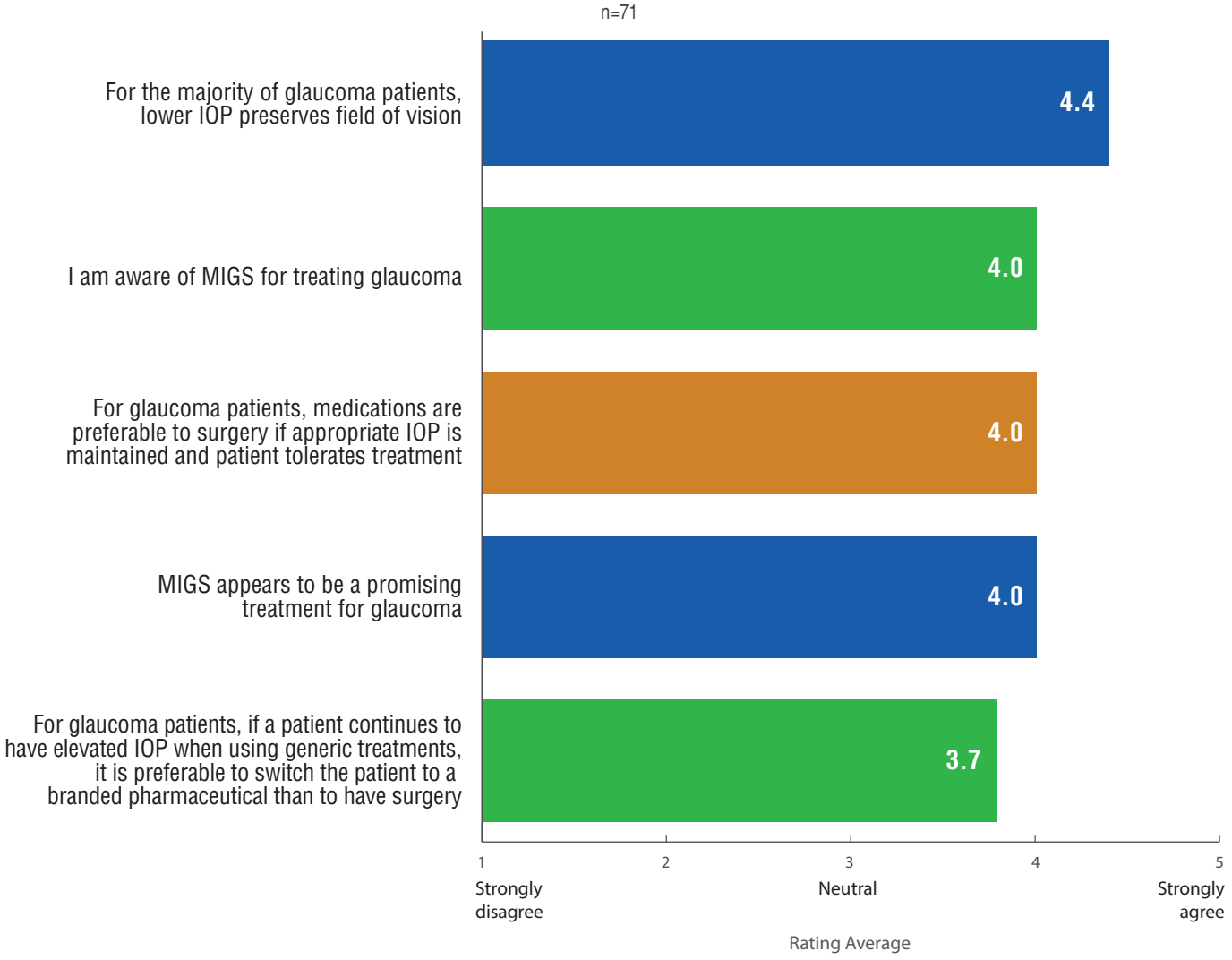


Percentages were converted to ratings using a 5-point scale.

According to the FDA, a generic drug is identical—or bioequivalent—to a brand-name drug in dosage form, safety, strength, route of administration, quality, performance characteristics, and intended use. (The FDA was not included in this research.)[1]

Figure 26

What is your perception of glaucoma-related treatment issues?



Percentages were converted to ratings using a 5-point scale.

9% would refer these patients to an ophthalmologist (n=70) (chart not shown).

"The high percentage (9%) that would refer patients suggests that many optometrists are not comfortable treating patients with glaucoma," says Dr. Bloomenstein.

Beta blockers are preferred second-line therapy, according to 34% of survey respondents (n=70) **(Figure 27)**.

Dry Eye Disease

Responding optometrists strongly agree that dry eye is a chronic, progressive disease, with a rating of 4.5 on a 5-point scale (n=70) **(Figure 28)**.

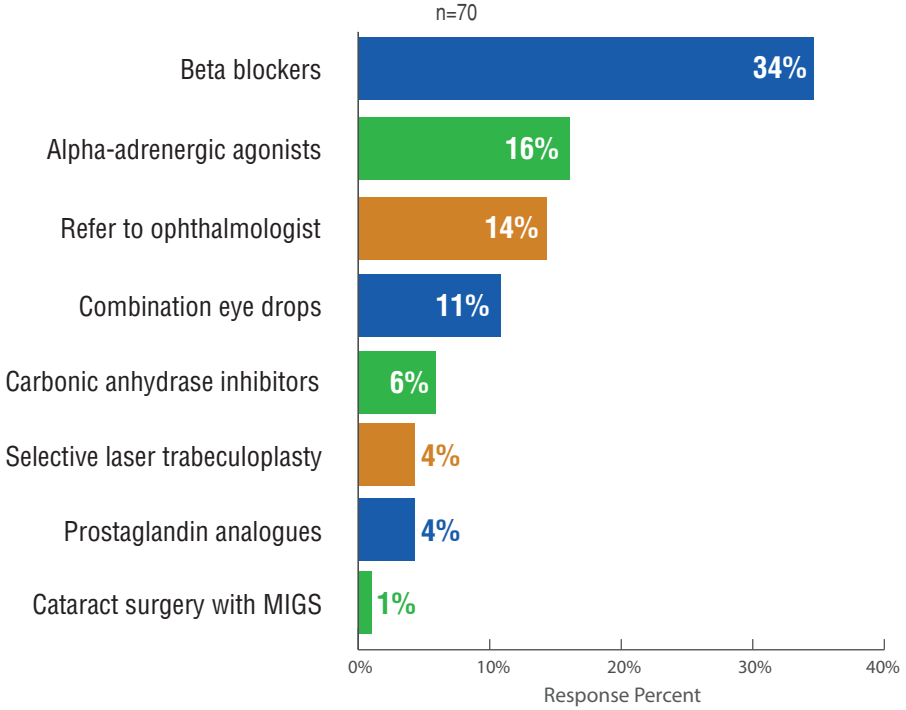
"Although the rating average of 4.5 is high, it could have been higher," according to Dr. Karpecki, who sees and treats many patients with advanced dry eye disease in his practice. "The condition affects working, reading, and driving."

Artificial tears are first-line therapy for dry eye disease, agree 80% of respondents (n=70) (chart not shown).

"Artificial tears used alone are a palliative measure, not a treatment," says Dr. Karpecki. "Optometrists need to take a more therapeutic and multifactorial approach to dry eye, by addressing the inflammation

Figure 27

What is your preferred treatment for glaucoma patients who have progressed to a second line of therapy?



and blockage associated with this progressive disease."

Dr. Bloomenstein agrees. "Optometrists see dry eye as a chronic, progressive disease but then go ahead and 'treat' it with artificial tears. Other treatment options should also be considered in patients with progressive disease."

"Patients with dry eye are generally given artificial tears but should also receive a more thorough evaluation," says Dr. Rumpakis. "Optometrists first need to do testing to find out the type of dry eye the patient has and what is causing it in order to target treatment."

Patient Adherence

While 35% of survey respondents report that patient adherence is better with oral medications than with eye drops, 54% say it makes no difference (n=71) **(Figure 29)**. "I think eye drops are tougher to administer," says Dr. Johnston. "New technology may offer alternatives beyond drops and orals."

Cost of regimen, with a rating of 4.5 on a 5-point scale, tops the list of factors that most affect adherence, say survey respondents (n=71) **(Figure 30)**, followed by simplicity of regimen, understanding of disease, and patient education, 4.3.

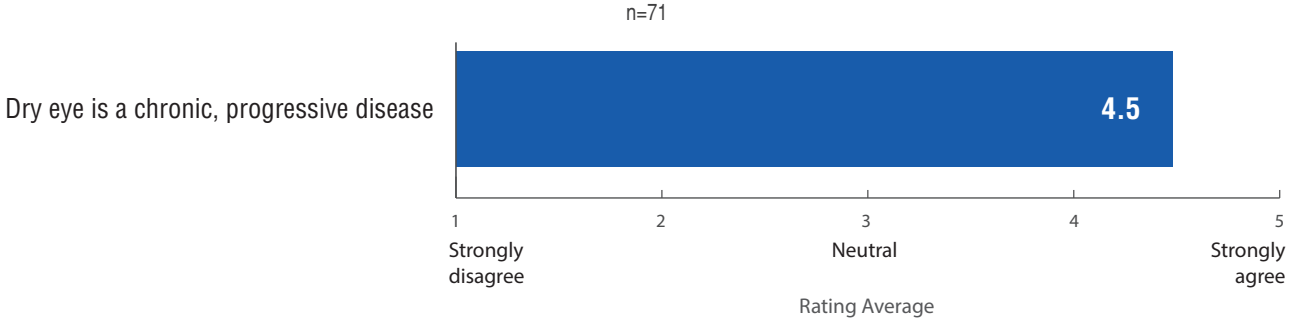
Providing reassurance to patients regarding the treatment benefit can positively impact patient adherence, says Dr. Bloomenstein.

"Cost becomes a value proposition. The next three factors listed are more important than cost," says Dr. Rumpakis.

Optometrists estimate that just 73% of eye drop instillations are successfully administered into the eye (n=70) (chart not shown). About one-quarter, 24%, of eye drops are believed to be wasted, resulting

Figure 28

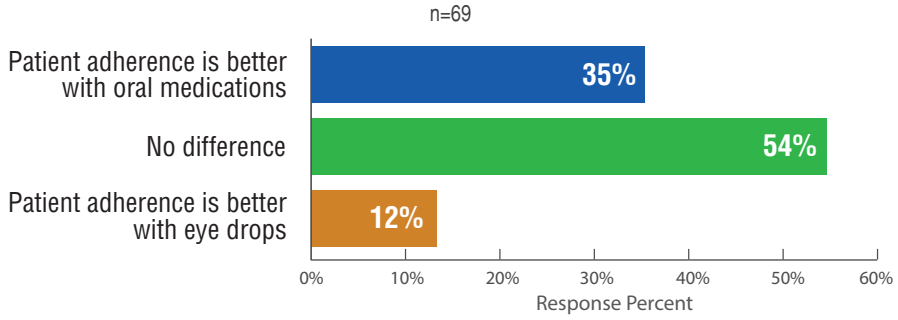
How strongly you agree or disagree with the following statement about dry eye?



Percentages were converted to ratings using a 5-point scale.

Figure 29

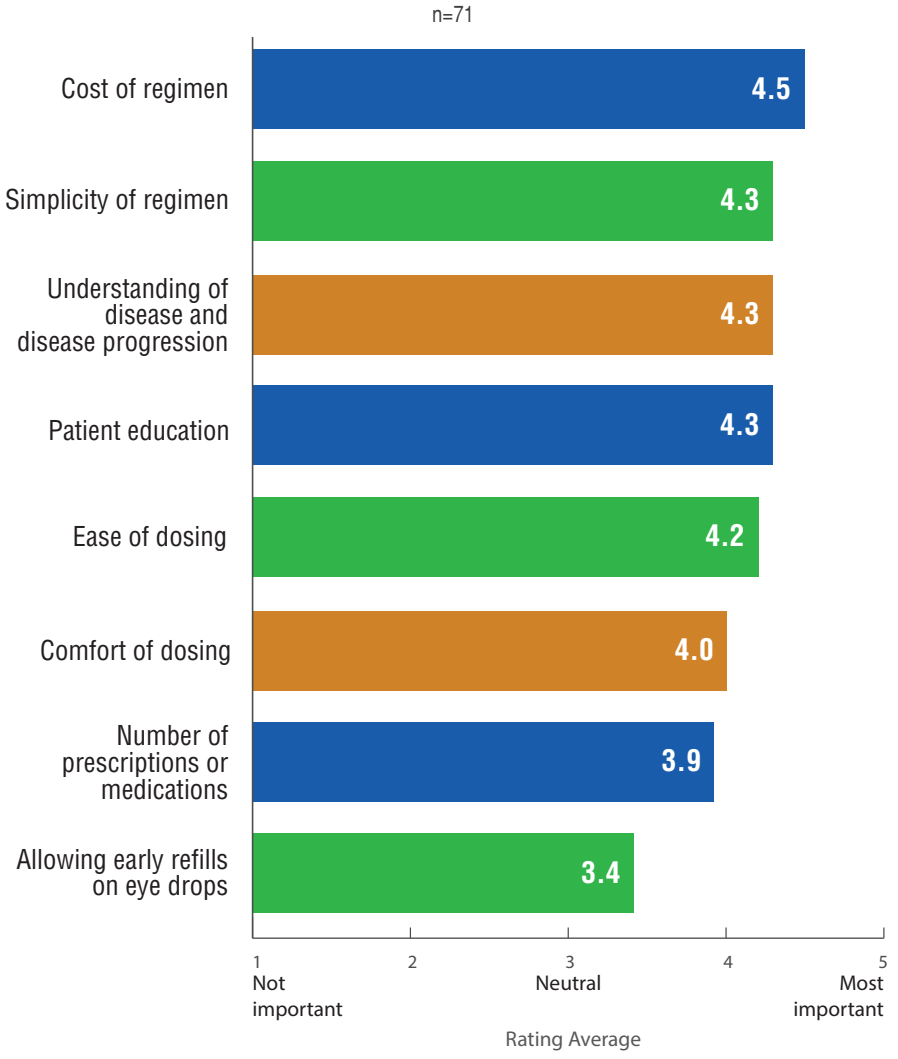
In your opinion, how does patient adherence for eye drops differ from adherence for oral medications?



Percentages may not total100% due to rounding.

Figure 30

In your opinion, which factors most aid patients to adhere to eye drop regimens?



Percentages were converted to ratings using a 5-point scale.

in the need for early refills. Dr. Bloomenstein suggests this number may be higher.

Optometrists monitor adherence by asking the patient, 99%; checking outcomes, 50%; checking for gaps in refill requests, 39%; and receiving reports from health plans, 4% (n=70) (chart not shown).

"Checking for gaps in refills is a great way to monitor adherence but how are they doing it?" wonders Dr. Karpecki. "Doctors are not using their health record systems to monitor adherence and generally are not receiving reports from health plans. Patient response is often unreliable. A good, simple way to do this would be valuable."

"I ensure adherence by bringing the patient back in for a follow-up visit," says Dr. Bloomenstein.

"Doctors should have an objective way of measuring adherence. Glaucoma and dry eye are not prn conditions—patients have to stick with their prescribed treatment to get results," says Dr. Rumpakis.

As for receiving adherence data from health plans: "How many optometrists request such data?" asks Dr. Rumpakis. "Optometrists may not be aware that some health plans will supply adherence data if it is requested."

Optometrists are only occasionally aware of the total cost of prescribed medication or patients' out-of-pocket costs, with a rating of 2.8 on a 5-point scale (n=70) (chart not shown). "Plan policies and coverage vary widely and are hard to predict," says Dr. Johnston.

A Look Ahead

More than half, 54%, of responding optometrists do not anticipate that there will be a shortage of ophthalmologists (n=69) (chart

not shown). Just 12% say there is a shortage currently; 11% predict a shortage within five years and 23% expect a shortage within 10 years. One survey respondent suggests that a shortage could be averted if ophthalmologists concentrated on surgery.

"There could be a shortage down the road," says Dr. Johnston.

"Aging of the population is contributing to a shortage of ophthalmologists," says Dr. Bloomenstein.

"There has already been a shortage of ophthalmologists in rural areas," says Dr. Rumpakis.

"As ophthalmologists focus more on surgery, there is a tremendous opportunity for optometrists to expand into medical eye care," says Dr. Karpecki.

Optometrists already see themselves as the "primary care providers" for eye care, according to 65% of survey respondents (n=70) **(Figure 31)**. "This number can be expected to increase. There are still fights over what we can or cannot do," says Dr. Johnston. "The 'at present' response should be 100%," says Dr. Karpecki.

"This is a crazy question. Optometrists have been the primary care providers for eye care for at least a couple of decades," says Dr. Rumpakis.

Opportunities Versus Challenges

Optometrists were asked to name challenges and opportunities around eye care.

Optometrists worry about online competition for eye exams and vision care products (10 responses) and declining reimbursements from both health plans and vision care plans (28 responses). Respondents also mentioned increasing government regulation and reporting requirements, as well as medical panel enrollment at health plans becoming more difficult.

"Challenges include state by state fights over scope of practice and disrupting technologies, such as online eye exams, that threaten traditional practice," says Dr. Johnston. "Optometrists need to be proactive and diversify. The future of eye care will be technology-driven. Younger optometrists will look to expand into medical services. Optometrists need to embrace lifetime learning and support local associations."

"The top challenge, in my opinion, is transitioning to medical insurance—getting on panels and having the resources to participate as a provider of medical eye care," says Dr. Karpecki.

"The biggest challenge facing the profession is apathy," says Dr. Bloomenstein. "Treatment of disease is being left to someone else. Optometrists need to step up and be proactive in performing comprehensive eye exams and managing glaucoma and dry eye starting with patients who are already sitting in our chairs."

"Many optometrists don't understand the system that we're moving towards: a merit-incentive based payment system (MIPS) under Medicare that will spread to commercial plans," explains Dr. Rumpakis. "Cost is already being determined for us. We have to demonstrate our ability to deliver cost-effective care two years in advance. Plans may include only the top 10% of providers. Plans will look to only include those providers who get great outcomes and deliver care that is cost-effective," he adds.

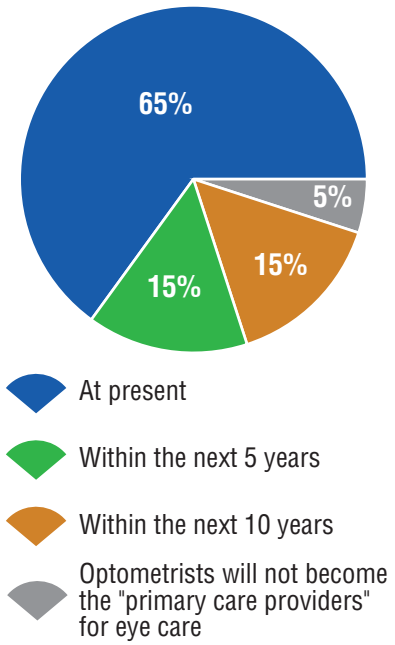
"Each medical specialty will be gauged by certain metrics focusing on delivery of quality care, use of technology, community outreach, and costs. Doctors will each receive a score from 0 to 100, which will determine who will be a provider and payment amount beginning in 2019. Documentation started in 2017. Registries, such as MORE (Measures and Outcomes Registry for Eye Care), established by the American Optometric Association, will capture data pulled from the practice's health record system."

As for opportunities, Dr. Rumpakis urges optometrists to focus on delivering quality care to patients without distinguishing between medical care and vision care. "Optometrists should focus on caring for patients whatever their needs, be it refractive disease or other tissue-based disease. Take care of the total patient 100% of the time."

Figure 31

In your opinion, will optometrists become the "primary care providers" for eye care?

n=70



PART III

The Managed Care Perspective

Efficacy and cost are the main drivers of decision-making by health plans. The eye care category is complex. Therapies include, not only eye drops but also surgeries, injectables, and implants. What's more, these doctor-administered therapies are generally covered on the medical side of the managed care organization, making direct clinical and cost comparisons difficult. Although generic drugs are widely used in eye care, generic penetration for eye drops lags other therapeutic categories, perhaps reflecting the sensitivity of the eye as a drug delivery system.

These are among the findings of Part III: The Managed Care Perspective of *The Eye Care Trend Report, Volume III*. A total of 78 managed care executives were surveyed on these and other eye care issues.

Five managed care experts were interviewed to interpret the survey findings and provide commentary:

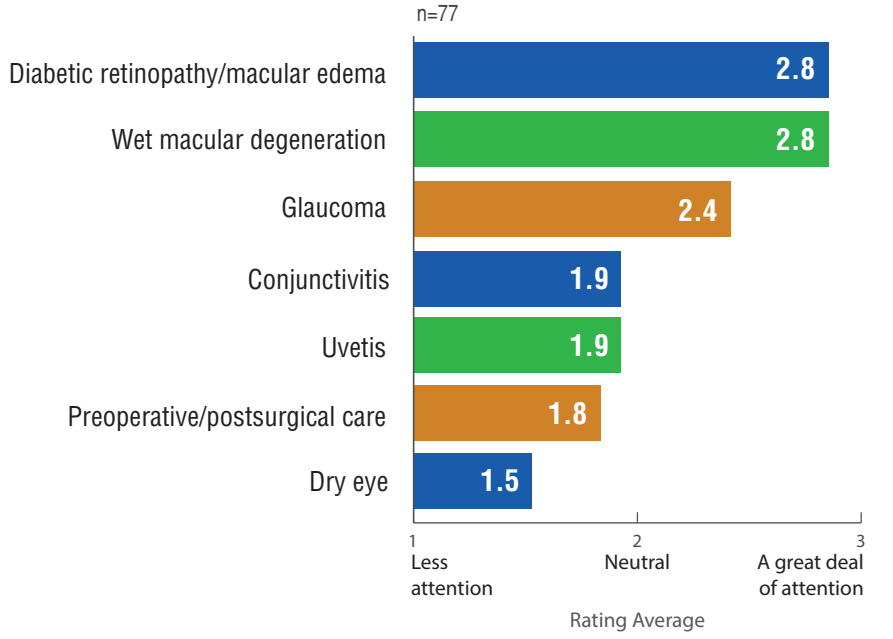
- **Dale A. Bultemeier**, RPh, Assistant Vice President, Ancillary Services, Physicians Health Plan of Northern Indiana, Indianapolis, IN
- **Stephen B. Cichy**, Founder and Managing Director, Monarch Specialty Group, LLC, Chicago, IL
- **Fredrick A. May**, MD, Medical Director, EMI Healthcare, Indianapolis, IN
- **Edmund Pezalla**, MD, Consultant and CEO, Enlightenment Bioconsult, LLC, Wethersfield, CT. Former Vice President of Pharmaceutical Policy at Aetna
- **Derek van Amerongen**, MD, MS, Vice President and Medical Officer, Humana of Ohio, Cincinnati, OH

Diabetic retinopathy and wet macular degeneration garner the most attention from managed care executives surveyed, with a rating average of 2.8 each on a 3-point scale (n=77) **(Figure 32)**.

These two conditions are also being monitored for growth over the next two years. A total of 62% of respondents are concerned about

Figure 32

How much attention does your organization pay to these eye conditions?



Percentages were converted to ratings using a 3-point scale.

diabetic retinopathy while 56% are concerned about wet macular degeneration (n=77) (chart not shown). Glaucoma is third on both lists.

"These conditions are best caught early to preserve vision," notes Edmund Pezalla, MD, of Enlightenment Bioconsult."These conditions are also the most costly to treat," adds Fredrick May, MD, of EMI Healthcare.

"The incidence of diabetes and its complications is exploding and is a major focus of our health plan," says Dale Bultemeier, RPh, of Physicians Health Plan of Northern Indiana. Thirty percent of managed care respondents anticipate paying more attention to the eye care category in the future; 64% expect to remain neutral, for a rating average of 2.3 on a 5-point scale (n=77) **(Figure 33**). Of those plans that serve a Medicare population, 36% expect to pay more attention to eye care in the future, for a rating average of 2.4

> "We've recently added optometrists to our medical provider network for eye care. We will continue to see that trend."
>
> – Dale Bultemeier, RPh

"Compared with more costly conditions such as diabetes, heart disease, multiple sclerosis, hepatitis C, rheumatoid arthritis, and cancer, eye disease is way down on the list of priorities," says Derek van Amerongen, MD, MS, of Humana of Ohio." We focus on diabetes because of heart attacks and strokes resulting in emergency department visits and hospitalizations, not because of eye disease."

"Managed care executives are concerned about costly treatments currently available and in the pipeline," says Dr. May.

Role of Optometrists

Optometrists are included as medical providers of eye care services in the health plan's provider network, say 56% of responding managed care executives (n=77) **(Figure 34)**."Optometrists can provide good coverage and access for primary eye care at relatively low cost," says Dr. Pezalla.

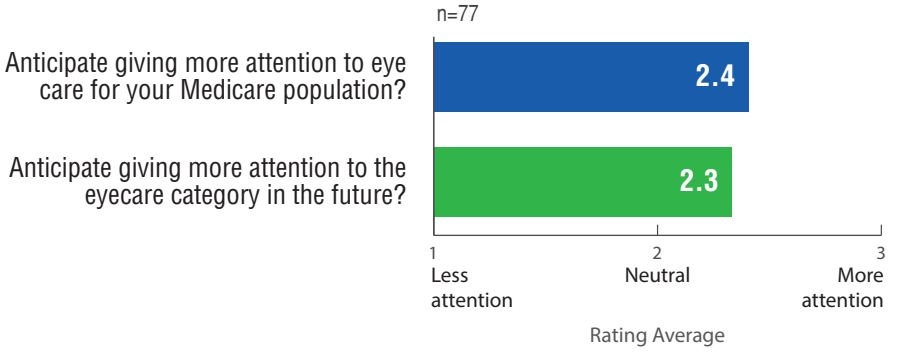
"We've recently added optometrists to our medical provider network for eye care," says Mr. Bultemeier."We will continue to see that trend. Wait times to see an ophthalmologist are much longer than to see an optometrist and members want access to care."

"We work with optometrists who are willing to meet our contract terms," says Dr. van Amerongen.

A total of 31% of managed care respondents see optometrists currently assuming a primary

Figure 33

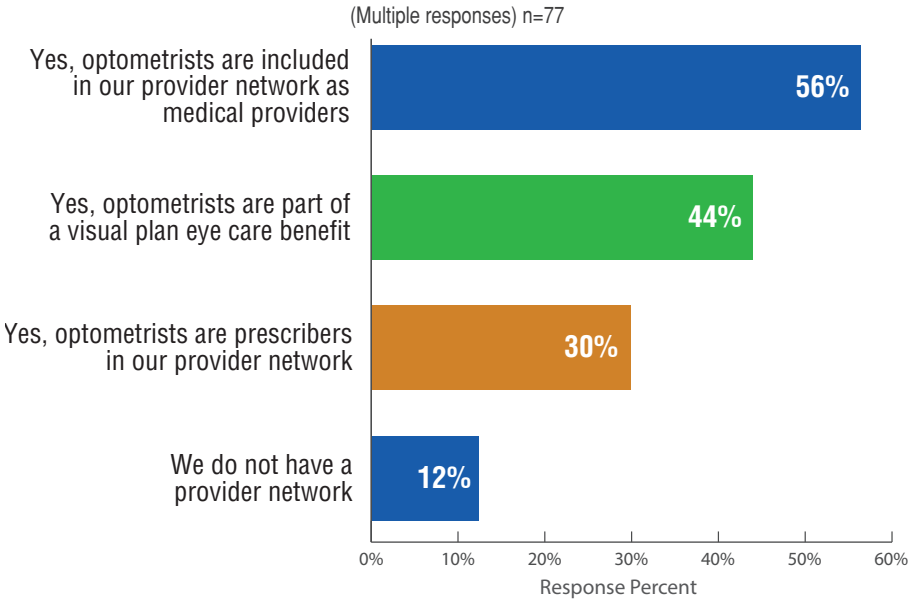
Does your organization:



Percentages were converted to ratings using a 3-point scale.

Figure 34

Do you include optometrists in your provider network?



care role in the delivery of eye care (n=76) (chart not shown). Respondents' written comments include: Today the optometrist is the first line of eye care; They will take over routine care; We use them today as first-line visits for eye care.

Another 31% see optometrists assuming such a role within five years. Five respondents say that optometrists need more training.

"Optometrists are much more accessible than ophthalmologists, some even accept walk-ins." notes Dr. May. "However, there is some confusion in some peoples' minds over the respective qualifications and roles of optometrists and ophthalmologists."

"Optometrists are becoming more significant in providing primary eye care," says Dr. Pezalla, "possibly reflecting increased specialization of ophthalmologists." Mr. Bultemeier agrees: "The ophthalmologist will become the specialist taking care of patients with higher-level disease."

"I am a big fan of ancillary providers or physician extenders, including pharmacists, nurse practitioners, and optometrists," says Dr. van Amerongen. "Many services that people need, especially routine services, do not have to be provided by physicians. More people will need services. Optometrists can provide basic services, such as prescribing glasses and screening for glaucoma, and do so in a more timely and less costly way than can ophthalmologists."

One-fifth of managed care respondents say there is currently a shortage of ophthalmologists; another 29% expect there to be a shortage within five years (n=76) (chart not shown).

"The lack of a consensus on whether a shortage of ophthalmologists exists or when one might occur may reflect geographic differences with some underserved areas," suggests Dr. Pezalla.

"There is already a shortage statewide in Indiana. Wait time for a non-emergency ophthalmologist visit can take six months," says Mr. Bultemeier.

Generic Drug Penetration

Generic drug penetration continues to grow across all therapeutic categories but lags in eye care. While 80% penetration overall is projected by managed care respondents by 2020 (n=76) **(Figure 35)**, generic penetration of the eye care category is expected to be lower, at around 72% (n=75) **(Figure 36)**.

"Generic drug use is being driven by both plans and patients," says Dr. May. "We are running 87% generic across all therapeutic categories but less than that in eye care," notes Mr. Bultemeier. "There is more use of brands in eye care."

Figure 35

What do you anticipate the proportion of total prescriptions will be for generics in:

n=76

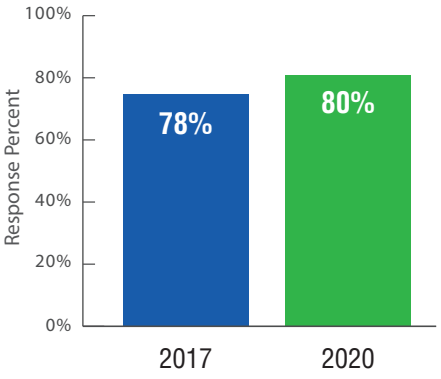


Figure 36

What do you anticipate the proportion of eye care prescriptions will be for generics in:

n=75

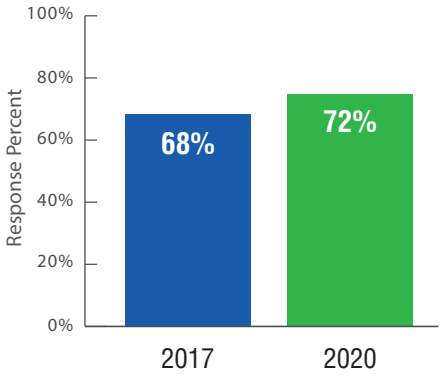


Figure 37

For your Medicare population, approximately what percentage of the organization's pharmacy budget is spent on eye care?

n=46

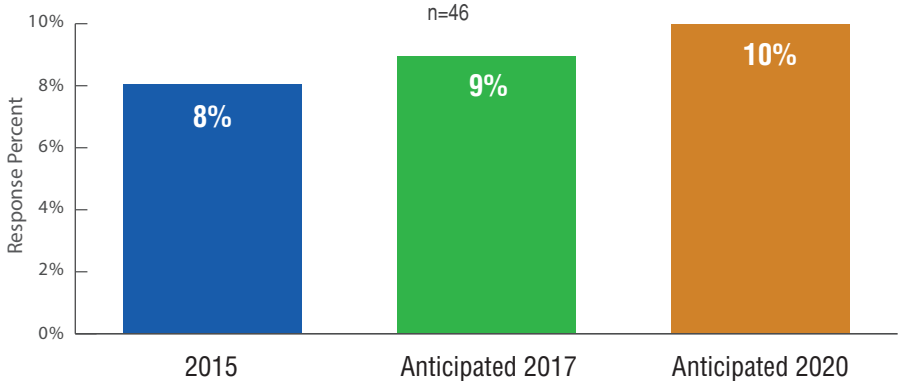


Figure 38

How does your organization generally handle prescriptions for brands when a generic enters the class?

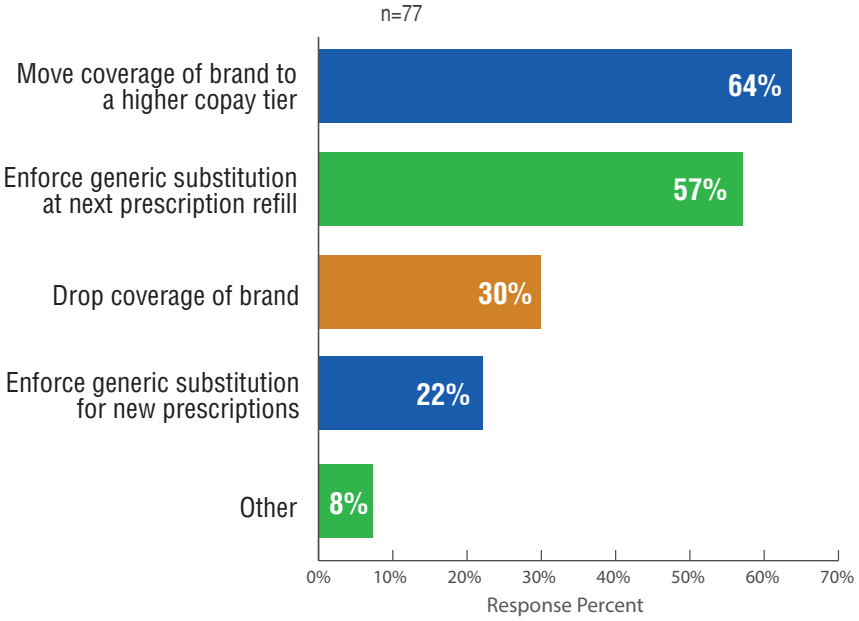
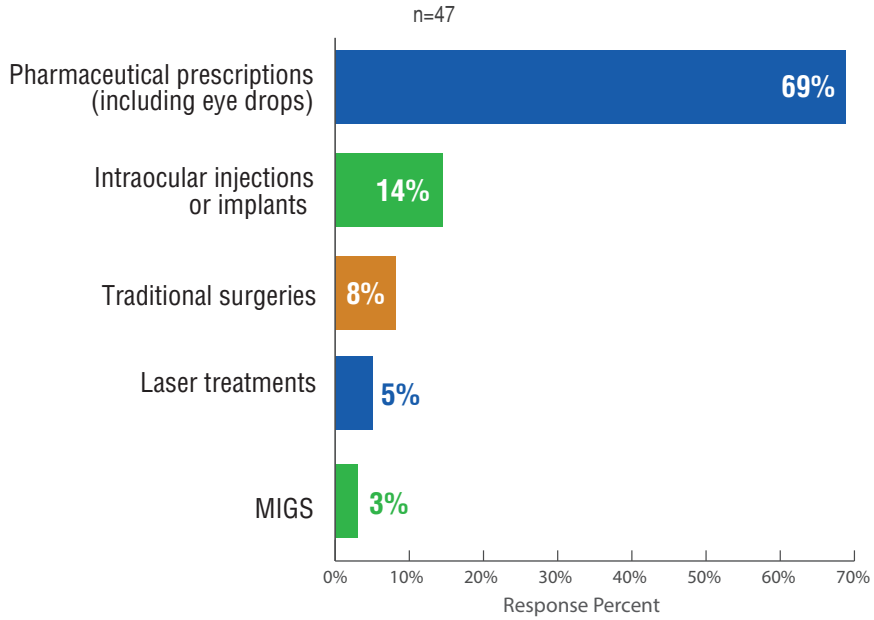


Figure 39

What percentage of covered eye care therapies are:



"As a plan, our generic drug rate is 85%," says Dr. van Amerongen. "I estimate that the generic rate for eye care medications is in the 70s but we don't track it."

The portion of the pharmacy budget spent on eye care by Medicare plans is expected to grow to 10% by 2020 (n=46) **(Figure 37)**. That portion spent by commercial plans is expected to grow to 9% by 2020 (n=46) (chart not shown).

"The proportion of our pharmacy budget spent on eye care is 5%. I expect that proportion to increase to 7% by 2020," says Dr. van Amerongen.

"Eye drops are inexpensive, especially compared with specialty drugs," says Mr. Bultemeier.

"More attention is being paid to eye care as expenditures increase," says Dr. Pezalla.

For all therapeutic categories, when a generic drug enters a therapeutic class, 64% of managed care respondents will shift brand coverage to a higher tier while 57% will enforce substitution at next refill (n=77) **(Figure 38)**. "We take these two steps and increasingly drop coverage of the brand as well," says Dr. van Amerongen. "We are looking for opportunities to reduce the number of drugs we cover but we will cover the brand in those rare cases where patients can't tolerate the generic."

Three survey respondents say their response depends on rebate contracts. "I agree with these comments on rebates," says Stephen Cichy of Monarch Specialty Group.

One year later, an average of 82% of plan members will be using the generic (n=76) (chart not shown).

"The tier structure encourages patients to give the generic a try," says Dr. May. "The rate of acceptance is high."

"This is in keeping with most brand-to-generic conversions," says Dr. Pezalla. "Over time, generic use increases."

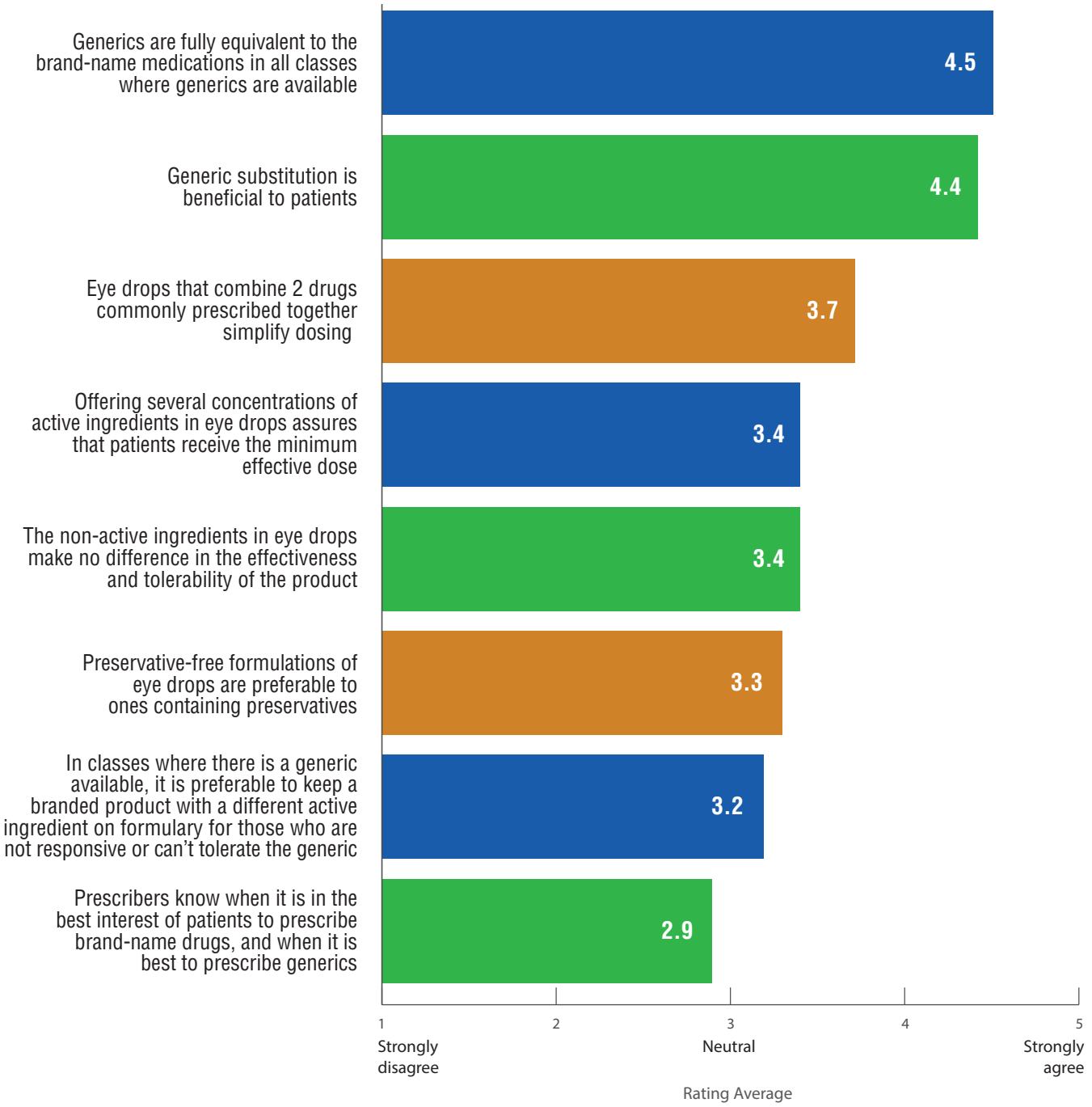
Pharmaceuticals, including eye drops, account for 69% of covered eye care therapies; intraocular injections and implants make up 14% (n=47) **(Figure 39)**.

Managed care executives strongly agree that generics are fully equivalent to brand-name medications, with a rating average of 4.5 on a 5-point scale (n=78)

Figure 40

Please state how strongly you agree or disagree with the following statements:

n=78



Percentages were converted to ratings using a 5-point scale.

According to the FDA, a generic drug is identical—or bioequivalent—to a brand-name drug in dosage form, safety, strength, route of administration, quality, performance characteristics, and intended use. (The FDA was not included in this research.)[1]

(Figure 40). They also strongly agree that generics are beneficial for patients, with a rating of 4.4."I rate each of these with a 5," says Dr. van Amerongen.

Survey respondents are less convinced that combination eye drops simplify dosing, with a rating of 3.7. Respondents generally agree that non-active ingredients make no difference in effectiveness and tolerability, with a rating of 3.4, but with 22% disagreeing.

According to the FDA, a generic drug is identical—or bioequivalent—to a brand-name drug in dosage form, safety, strength, route of administration, quality, performance characteristics, and intended use (The FDA was not included in this research.)[1]

"Many patients using eye drops are also being treated for comorbid conditions so cost of medication is a factor," says Dr. Pezalla.

"In my experience, generics are just as good as brands. If members want the brand, they can get it but they have to pay more," says Mr. Bultemeier. "Combination drops are too costly and provide less flexibility in dosing."

"There is some concern as to whether fixed-dose combination products are a good value," agrees Dr. Pezalla.

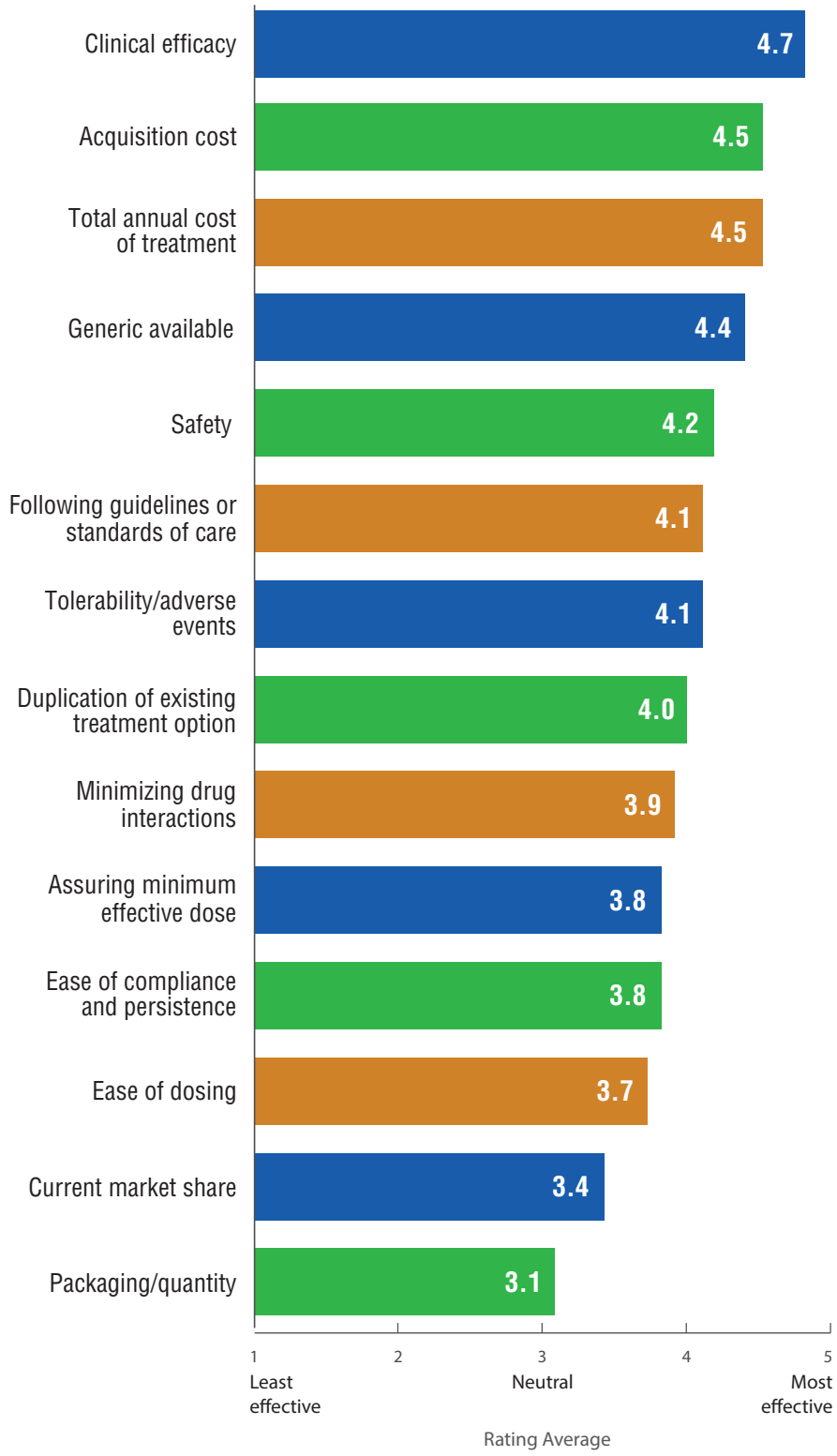
"Managed care organizations view combination products as increasing the cost with two brand-name products but the patient only pays one co-pay. That case can be made for orals but eye drops are different. The eye can only hold so many drops," says Dr. May.

"Combining two drugs is not the answer to improving adherence. Compliance is complex and multifactorial. Most important is patient understanding of the treatment. Providers need to focus more on educating the patient on what to do and why," says Dr. van Amerongen."Cost is also an issue."

Figure 41

How do you rate the following factors when evaluating a new drug within a class?

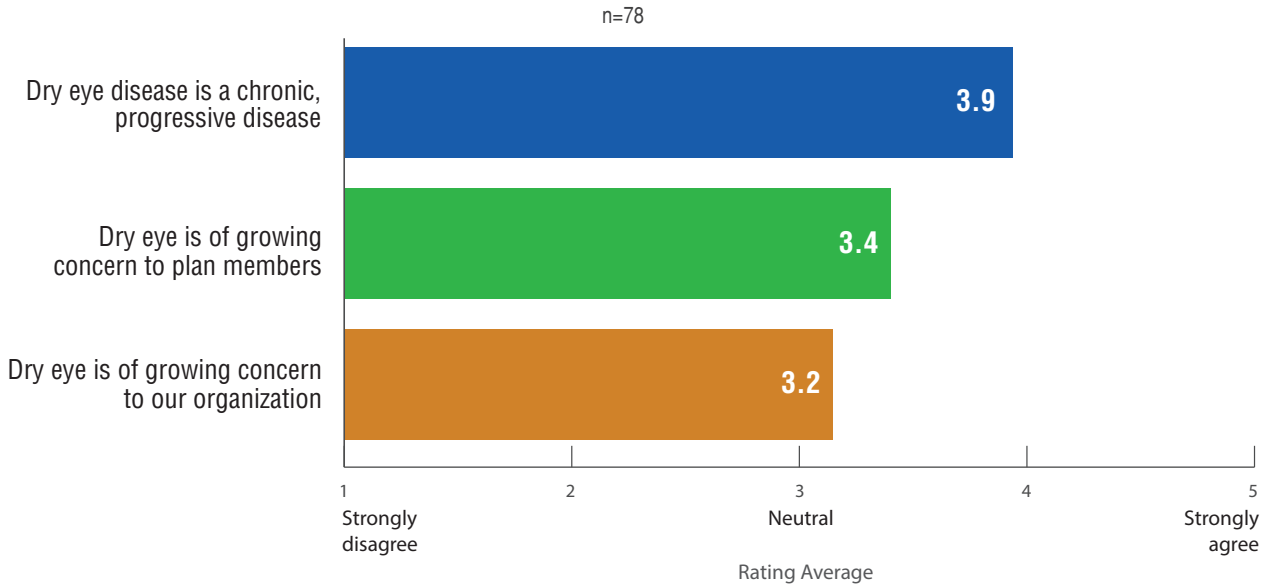
n=78



Percentages were converted to ratings using a 5-point scale.

Figure 42

Please state how strongly you agree or disagree with the following statements about dry eye:



Percentages were converted to ratings using a 5-point scale.

Evaluating New Drugs

Clinical efficacy edges out cost as the top factor in evaluating new drugs, with a rating of 4.7 on a 5-point scale, followed by acquisition cost and annual cost of treatment, both with a rating of 4.5 (n=78) **(Figure 41)**."We all want better outcomes for patients," says Dr. May.

"I rate the first three factors with a 5 for each," say Dr. van Amerongen. "The key focus for managed care is always efficacy and cost. Safety is an issue for the FDA and for clinicians in treating individual patients."

"Cost is always critical," notes Mr. Bultemeier."Most important to me," says Mr. Cichy,"are safety, efficacy, and cost."He also considers whether a drug has a different mechanism of action.

Injectables and Implants

Managed care executives are aware of implantable and injectable products on the market and agree these can improve adherence, with a rating average of 3.8 on a 5-point scale (n=77) (chart not shown).

"While use of injectables can improve adherence, patients are reluctant to undergo injection," says Dr. May."In addition, such procedures are covered under the medical benefit, which typically incurs higher upfront cost for patients."

"The advantage of an implant is that it is typically a one-time cost as opposed to the ongoing cost of a medication," says Dr. van Amerongen.

Managed care respondents rate the use of these devices in newly diagnosed patients at 3.1 on a 5-point scale."This reflects a preference that less invasive and less costly eye drops be tried first," says Dr. Pezalla.

Coverage decisions regarding implantable products are made on the medical side, according to 78% of managed care respondents (n=78) (chart not shown).

Clinical Pathways

A total of 42% of managed care respondents say they use clinical pathways to guide plan coverage of ocular implants that are enforced through prior authorization (n=78) (chart not shown).

"Use of clinical pathways is becoming more common, leading to care that is more consistent," notes Mr. Bultemeier."Such consensus guidelines are typically developed by professional organizations."

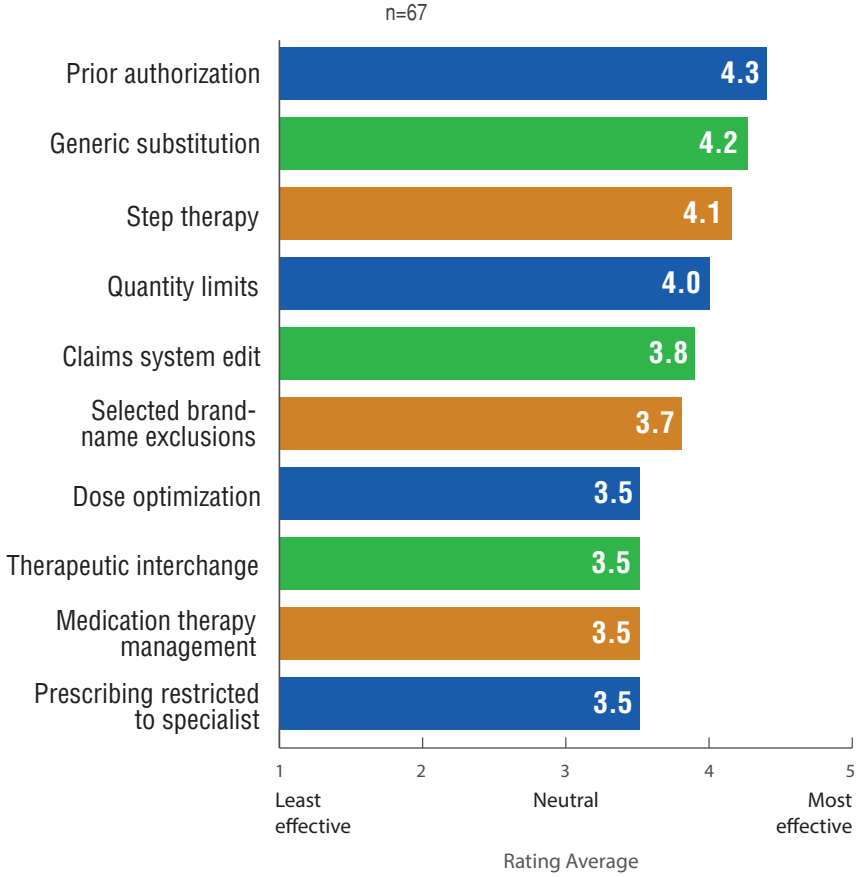
"More use of clinical pathways is being driven by the CMS, which is tying reimbursement for physician services to physicians achieving certain quality measures," says Mr. Cichy.

> "The advantage of an implant is that it is typically a one-time cost as opposed to the ongoing cost of a medication."
>
> – Derek van Amerongen, MD

"Clinical pathways have become increasingly important," says Dr. Pezalla. "They were first used in cancer care. They are most applicable where treatments include

Figure 43

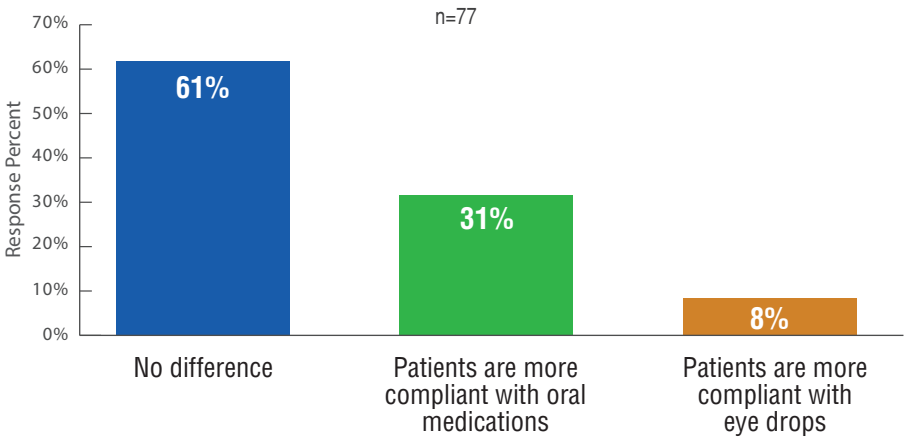
Which utilization management techniques do you find most effective for eye care products?



Percentages were converted to ratings using a 5-point scale.

Figure 44

In your opinion, how does patient adherence for eye drops differ from adherence for oral medications?



a combination of pharmacy drugs, medical drugs, and procedures."

"We limit our use of clinical pathways to high-cost areas, such as oncology and hepatitis C, and are unlikely to focus on ophthalmology," says Dr. van Amerongen."I am not terribly worried that patients with glaucoma or macular degeneration are receiving inappropriate treatment. Ophthalmologists do a very credible job of identifying the right patients needing treatment. The outcomes are also more obvious in terms of improved vision."

Dry Eye Disease

Dry eye is recognized as a chronic, progressive disease, with a rating of 3.9 on 5-point scale (n=78) **(Figure 42)**.

"I disagree with the statement that dry eye is of growing concern to our organization," says Dr. van Amerongen."There are just so many other issues to be concerned about."

Managed Care Tools

Managed care executives find prior authorization to be most effective to manage utilization of eye care products, with a rating of 4.3 on a 5-point scale, followed by generic substitution, 4.2, and step therapy, 4.1 (n=67) **(Figure 43)**.

"These are the top three," says Mr. Bultemeier."In step therapy we require that members use a generic eye drop first before a brand."

"Prior authorization is a valuable tool for managing high-cost drugs but can itself be costly to implement," says Dr. van Amerongen."I expect that health plans will continue to rely on these same managed care tools for the foreseeable future."

Most survey respondents (61%) maintain there is no difference in

patient adherence with eye drops versus oral medications (n=77) **(Figure 44)**.

"I think patients are more adherent with eye drops. It all hinges on the importance patients attach to administering the eye drops as prescribed," says Mr. Bultemeier.

"Adherence is easier with oral medications," says Dr. van Amerongen.

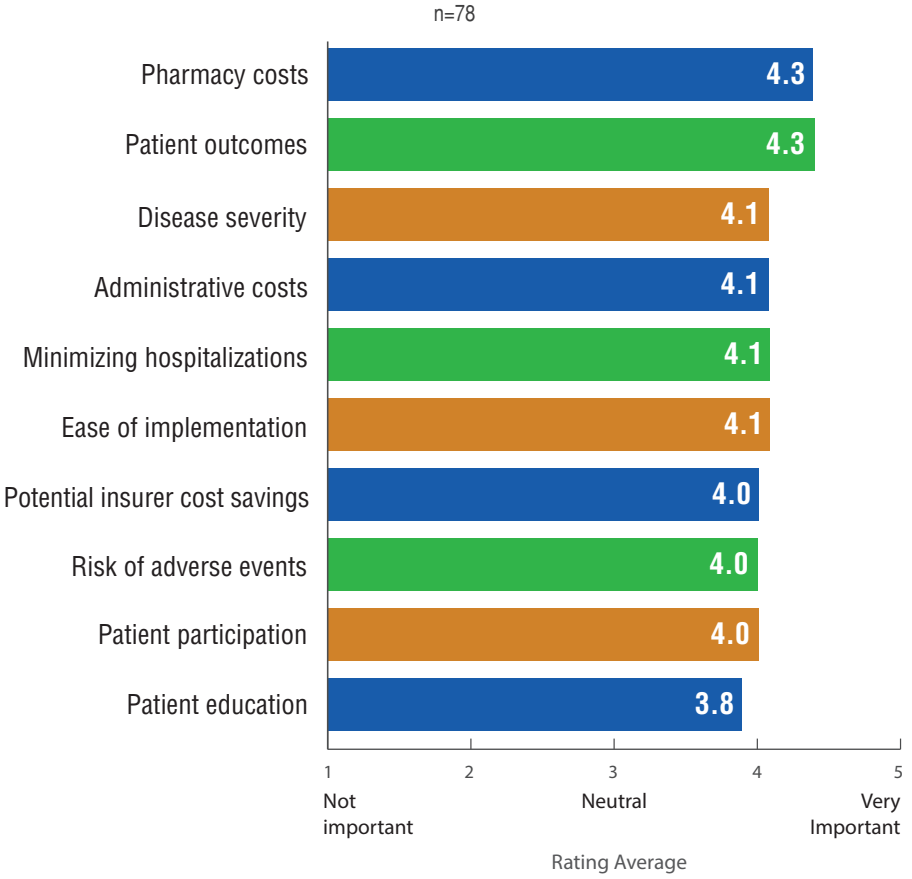
"What is needed is an improved mechanism for getting drops in the eye," says Dr. May.

Pharmacy costs and patient outcomes top the list of factors considered in developing adherence programs for eye care, with a rating of 4.3 each on a 5-point scale (n=78) **(Figure 45)**.

"Adherence hinges on the patient's understanding of the treatment, the commitment of the health professional team, the patient's level of education, cost, and the perceived benefit of the treatment," says Dr. van Amerongen.

Figure 45

Please rate the importance of the following factors when developing adherence programs for eye care:



Percentages were converted to ratings using a 5-point scale.

Knowing the Cost

Eye care professionals know the cost of patients' medications and co-pay amounts infrequently, with ratings of 2.4 and 2.6 on a 5-point scale, respectively (n=78) (chart not shown).

"Providers have no idea. It is becoming more important for doctors to know the approximate cost as member cost sharing increases," says Mr. Bultemeier.

"Providers need to understand the total cost of care, including the burden of treatment put on patients," says Dr. van Amerongen. "There needs to be more education to get patients to understand why they should follow the treatment regimen."

Challenges Ahead

Managed care executives were asked to name challenges and opportunities ahead for the eye care category. Of 65 primary challenges listed by managed care respondents, nearly all are related to reining in costs. Comments include: access to care; pharmacologic therapies will continue to be the first choice of payers; costs are going up, especially for diabetic macular edema and macular degeneration; and optometrists to take on a more clinical role. Potential solutions to rising costs proposed include: more use of prior authorization and step edits; use of treatment pathways; biosimilars; and an expanded role for optometrists.

"Maintaining access to care and containing costs are the most important challenges," agree Dr. May and Mr. Bultemeier.

"Ophthalmology is complex," observes Dr. Pezalla. "It is difficult to compare drops with injectables and procedures. Comparable data are often not available, plus these are evaluated by different parts of the managed care organization."

"We need better alignment between reimbursement and the outcomes experienced by patients," says Dr. van Amerongen. "That is the definition of value."

Methodology

The Eye Care Trend Report, Volume III, supported by Allergan, examines trends in eye care from three perspectives: those of ophthalmologists, optometrists, and managed care executives. The report also combines quantitative analysis using surveys with qualitative analysis and expert commentary.

Three separate surveys were sent by fax and email to ophthalmologists, optometrists, and managed care executives in 2016. A total of 102 ophthalmologists, 71 optometrists, and 78 managed care executives completed the survey questions.[4]

Survey responses were analyzed by an independent Editorial Advisory Panel whose 12 members also provided commentary.

Most survey findings are presented as percentages in the charts and text. Other survey findings are presented using rating scales. Using a 5-point scale, for example, 5 indicates the highest rating and 1 indicates the lowest. For all survey findings, "n" indicates the total number of respondents who answered each question. Percentages for some charts may not total 100% either due to rounding or because questions allowed for multiple responses.

Ophthalmologist Survey

A total of 102 ophthalmologists responded to the survey. About half, 49%, are in single-specialty group practice (n=102). Another 24% are in multispecialty group practice and 23% are in solo practice.

More than half of survey respondents, 54%, specialize in cataract surgery. Another 32% specialize in diseases of the cornea, followed by refractive surgery, 26%, glaucoma, 24%, and retina disease, 20% (n=96).

Optometrist Survey

A total of 71 optometrists responded to the survey. More than half, 58%, are in solo practice; 18% are in single-specialty practice, and 10% are in multispecialty group practice (n=71).

Managed Care Survey

A total of 78 managed care executives responded to the survey. About one-third, 32%, of managed care respondents represent health plans and managed care plans, followed by pharmacy benefit managers, 17%, and integrated health networks, 8% (n=78). Pharmacy directors make up 44% of respondents, with medical directors and clinical pharmacists accounting for 19% each, followed by corporate executives, 9%, and formulary development strategists, 5% (n=78).

Nearly half, 42%, of representative plans are national in scope (n=78). About half, 49%, of members are enrolled in commercial plans, with 23% enrolled in Medicare plans, and 19% enrolled in Medicaid plans; 5% are enrolled in Affordable Care Act health exchanges (n=77).

Comparisons and Conclusions

- **Practice revenue:** The largest proportion of revenue for ophthalmologists is from diagnosis and treatment of eye disease, 38%, followed by surgeries of the eye, 23% (n=100). For optometrists, the largest proportion of revenue is derived from vision services, 42%; diagnosis and treatment of eye disease account for 16% of practice revenue (n=71).
- **Largest payer:** The dominant payer for ophthalmology practices is Medicare, covering 46% of patient visits (n=102). For optometry practices, vision plans cover 37% of patient visits; Medicare covers 19% (n=71).
- **Ophthalmologist shortage:** A total of 69% of ophthalmologists expect to see a shortage of practitioners within 10 years (n=100) compared with 46% of optometrists (n=69) and 62% of managed care executives (n=76).
- **Expanded role for optometrists:** Most optometrists, 65%, currently see themselves as primary eye care providers (n=70) compared with 19% of ophthalmologists (n=102) and 31% of managed care executives (n=76).
- **Combination products:** Ophthalmologists (n=101) and optometrists (n=71) strongly agree that combination eye drop products simplify dosing, with ratings of 4.5 and 4.4 on a 5-point scale, respectively. Managed care executives are less convinced of the benefits of combination eye drops, with a rating of 3.7 (n=78).
- **Generic drugs:** Managed care executives feel strongly that generics are fully equivalent to brand-name medications, with a rating of 4.5 on a 5-point scale (n=78). This contrasts with a rating of 3.1 for optometrists (n=71) and 2.5 for ophthalmologists (n=101).
- **Non-active ingredients:** Do non-active ingredients affect efficacy and tolerability of eye drops? Ophthalmologists (n=101) and optometrists (n=71) disagree they play no role, with ratings of 2.0 and 2.3 on a 5-point scale, respectively. Response of managed care executives is more mixed, with a rating of 3.4 (n=78).
- **FDA statement:** According to the FDA, a generic drug is identical—or bioequivalent—to a brand-name drug in dosage form, safety, strength, route of administration, quality, performance characteristics, and intended use. (The FDA was not included in this research.)[1]
- **Dry eye disease:** Dry eye is a chronic, progressive disease, agree ophthalmologists (n=102) and optometrists (n=70), with a rating each of 4.5 on a 5-point scale. Managed care executives agree but less strongly, with a rating of 3.9 (n=78).
- **Choosing therapy:** Clinical efficacy tops the list of factors influencing prescribing by ophthalmologists, with a rating of 4.9 on a 5-point scale (n=102) and also optometrists, with a rating of 4.7 (n=70). In a similar managed care survey question, clinical efficacy topped the factors used by managed care executives to evaluate new drugs, with a rating of 4.7 (n=78). Next factors for managed care are acquisition cost, and annual cost of treatment, both with a rating of 4.5. Next for ophthalmologists are adherence, 4.6, and safety, 4.5. They rate annual cost at 4.2 and pharmacy cost at 4.1. Next for optometrists are safety and adherence, both 4.5. Optometrists rate annual cost at 4.1 and pharmacy cost at 4.0.
- **Oral versus drops:** Adherence is better with oral medications, agree 45% of ophthalmologists; 33% say there is no difference (n=102). Just 31% of

managed care executives agree; 61% say there is no difference (n=77). Among optometrists, 35% say adherence is better with oral medications; 54% say there is no difference (n=69).

- **Knowing the cost:** Eye care professionals acknowledge they infrequently know the approximate cost of the medications they prescribe, with ratings of 2.8 on a 5-point scale by optometrists (n=70) and 3.0 by ophthalmologists (n=102). Managed care executives concur that providers infrequently know the approximate cost, with a rating of 2.4 on a 5-point scale (n=78).

References

1. US Food and Drug Administration. Generic Drugs: Questions and Answers. http://www.fda.gov/Drugs/ResourcesForYou/Consumers/QuestionsAnswers/ucm.100100.htm.
2. Labetoulle M, Rolando M, Baudouin C, van Setten G. Patients' survey of DED and the relationship of time to diagnosis and quality of life: an international and multilingual survey. *Br J Ophthalmol*. Published online Dec 21, 2016.
3. Ophthalmology Residency. Total Matched Applicants. January 2017. https://www.sfmatch.org/SpecialtyInsideAll.aspx?id=6&typ=2&name=Ophthalmology#
4. *The Eye Care Trend Report, Volume III*. Methodology for Ophthalmology Perspective (n=102), Optometrist Perspective (n=71), and Managed Care Perspective (n=78): 2017.

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