FACTS YOU NEED TO KNOW ABOUT THE KAMRA® INLAY
IMPLANTED FOR IMPROVED NEAR VISION FOR PATIENTS WITH PRESBYOPIA

PATIENT INFORMATION BOOKLET

WARNING: The safety and effectiveness of implantation of the KAMRA® inlay in conjunction with or in tandem to LASIK or other refractive procedures has not yet been studied and therefore is unknown at this time.

This booklet has been provided to help aid in your understanding of the KAMRA® inlay procedure. Read the booklet in full and discuss the benefits and risks with your doctor. Prior to moving forward with any type of surgery, it's important to make sure all your questions are addressed by your doctor.

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KAMRA® INLAY

PATIENT INFORMATION BOOKLET

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GLOSSARY OF TERMS

Accommodation	The ability of the eye to change its focus from distant objects to near objects.
Aperture	A hole or an opening through which light travels.
Artificial Tears	Eye drops used to treat dryness and irritation for dry eyes.
Astigmatism	A distortion of the image on the retina caused by irregularities in the cornea or lens.
Cataract	A clouding of the lens inside the eye that may cause loss of vision.
Cornea	The clear front part of the eye.
Contrast Sensitivity	The ability of your visual system to distinguish between an object and its background (for example: light grey letters on a slightly lighter background).
Dry Eye	A common condition that occurs when the eyes do not produce tears to keep the eye moist and comfortable. Common symptoms of dry eye include pain, stinging, burning, scratchiness, and intermittent blurring of vision.
Depth of Focus	The range of vision over which an object appears in focus.
Endothelium	The inner layer of cells on the inside surface of the cornea.
Epithelial Cells	The cells that make up the outer layers of the cornea.
Extended Depth of Focus	Extending the range of distance over which an object appears in focus.
Glaucoma	A condition usually associated with fluid build-up in the front part of the eye. This extra fluid increases pressure in your eye called intraocular pressure (IOP). When this occurs, the optic nerve, which carries image signals from the eye to the brain, is damaged and vision may be lost.
IOL	“Intraocular lens.” An artificial lens that is placed in the eye during cataract surgery to replace the natural lens that has been removed due to the development of cloudiness resulting in decreased vision.

Keratoconus	A corneal disease characterized by general thinning and a cone shaped protrusion in the center of the cornea.
LASIK	An acronym for “laser in situ keratomileusis.” This is a surgical procedure in which a laser is used to reshape the cornea, thereby, correcting vision problems (e.g., nearsightedness, farsightedness, astigmatism).
Lens	A part of the eye that provides some focusing power. In a younger patient, the lens is able to change shape allowing the eye to focus at different distances.
Macular Degeneration	An age-related condition that can cause central vision loss through damage to the macula, the central part of the retina that is the sensory tissue lining the eye.
Manifest Refraction	The testing done to determine the lens prescription that enables you to see far away objects most clearly. This prescription can correct nearsightedness, farsightedness and astigmatism.
Punctal Plugs	Plugs inserted into the tiny holes at the inner corners of the eyelids to block tear drainage which helps keep the eyes more moist.
Pupil	The opening at the center of the iris of the eye for the transmission of light, which varies in diameter depending upon the brightness of the light coming into the eye.
Presbyopia	The loss of the ability to focus on near objects and read small print. This condition generally occurs between the ages of 40 to 50 and is part of the normal aging process.
Refractive Procedure	Refers to any eye surgery intended to change the eye’s focusing power. The most common procedure is LASIK.
Retina	A layer of fine sensory tissue that lines the inside wall of the eye. The retina acts like the film in a camera to capture images. It transforms the images into electrical signals, which are then sent to the brain.
Topography	A map of the corneal surface that shows elevation or curvature of the surface using colors (similar to a topographic map one might use for hiking).
Visual Vision	The clearness of vision as well as the ability to distinguish the details of objects.
Visual Field	The surrounding area that the eye can see when it is focused on a single point; it includes the central and peripheral vision in all directions.

1. INTRODUCTION

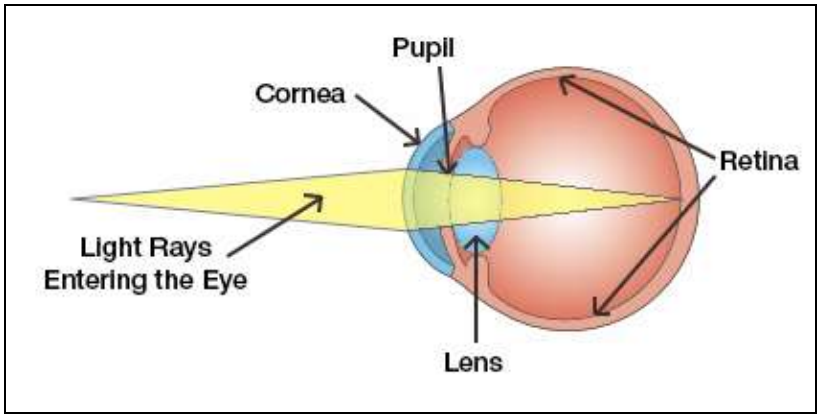
Are you having difficulty focusing on near objects such as reading the newspaper, ordering off a menu or sending a text message? Have you noticed you are stretching your arms to read fine print? If so, you may be experiencing the effects of presbyopia (prez-bee-OH-pee-ah), a natural loss of near vision. This booklet contains information to help you decide if the KAMRA® inlay might be the right choice for you. Please read this booklet in full, discuss the risks and benefits with your surgeon and be sure to ask any additional questions you may have. Only your eye care professional can determine whether or not you are a suitable candidate.

How the Eye Functions

Your eye focuses light to form images or "pictures" much like a camera. Your eye changes the images into electrical signals and sends them to the brain. If your eye is out of focus, what you see is blurred.

When light first enters the eye, it passes through the clear part of your eye, called the cornea, then moves through the pupil, next through the lens, and lastly will form an image as the light reaches the back of the eye, known as the retina. This is shown in **Figure 1** below.

Figure 1: Light Rays Entering into the Eye



As light rays enter the eye, the cornea helps bend the light towards the retina, and the lens helps focus the rays, allowing you to see a range of vision from near to far.

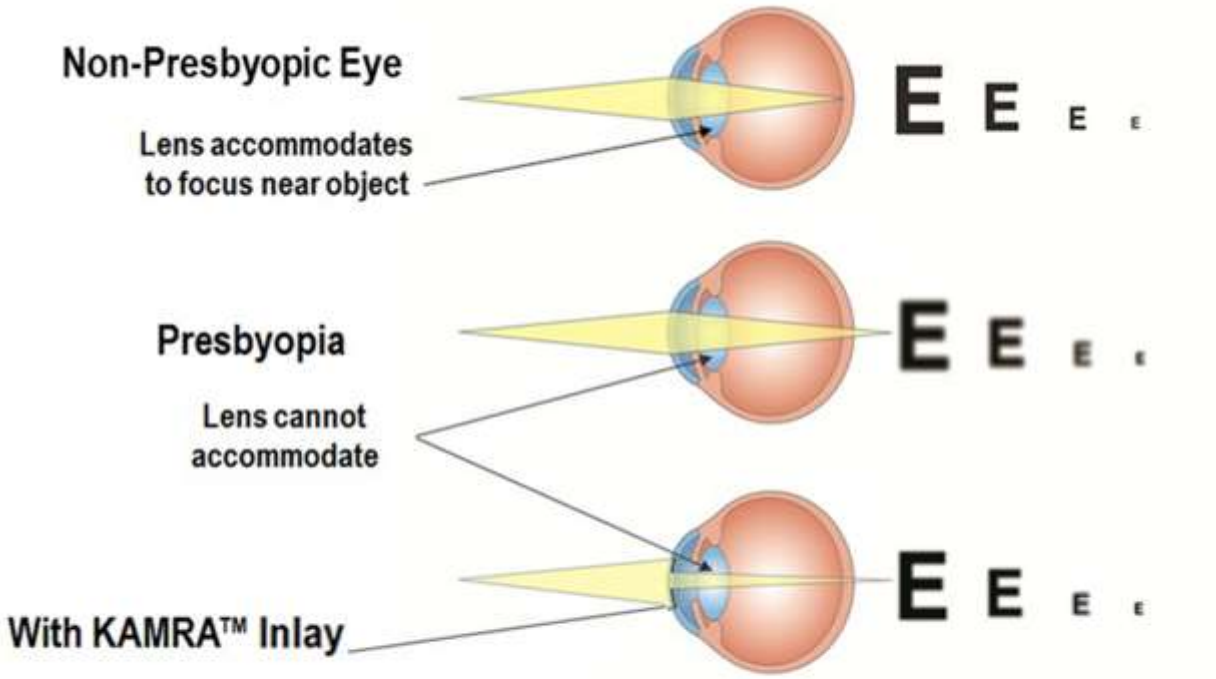
What is Presbyopia?

Over time, the eye's natural lens, which is normally stretchy and flexible, loses its elasticity and begins to stiffen. This stiffening reduces the eye's ability to change shape in order to focus on near objects. This causes vision to be out of focus, making objects look blurry. If this is happening to you, you are experiencing the effects of presbyopia. To compensate, you move objects farther and farther away in order to focus and see more clearly. Eventually, you might

find yourself holding reading materials at arm's length. This natural condition ultimately affects everyone, even if you've always enjoyed clear vision, and typically occurs between the ages of 40 and 50.

As you develop presbyopia, your natural range of vision, also known as depth of focus, decreases. The KAMRA® inlay technology helps to extend your depth of focus by blocking unfocused light rays from the sides and isolating the more focused central light rays through the 1.6 mm aperture in the inlay. **Figure 2a** compares the near vision without glasses among a non-presbyopic eye, a presbyopic eye, and an eye with the inlay. Notice the "Es" in the eye with the inlay are clearer than the "Es" in the presbyopic eye, but not quite as clear as the "Es" in the non-presbyopic eye. Blocking the unfocused light rays decreases the blurry image in the back of the eye, and, thereby, extends the range over which the "E" will be perceived clearly.

Figure 2a – Illustration of Improved Near Vision in Presbyopic Eyes With KAMRA® Inlay



What are the alternatives to treating presbyopia?

The KAMRA® inlay procedure is an elective procedure. You may decide not to have the KAMRA® inlay at all. Other possible alternatives for treating presbyopia may be:

- Bifocal, Trifocal, "readers", and/or progressive glasses: These glasses have prescription for one, two, or more distances (a range from near to far) in the same lens. Glasses can be worn, removed, and replaced easily. If the power or the fitting of the glasses is incorrect, it can lead to inadequate vision correction, headaches and eye strain.
- Contact lenses (monovision, bifocal, trifocal, and multifocal): In monovision, one eye is corrected for distance vision (or no contact lens is used in this eye, if the uncorrected distance vision is good) and the other eye is corrected for near vision. Often, patients do well with monovision. However, in some cases patients have difficulty adapting to having the eyes not focused in the same plane. Much like glasses, there are monofocal, bifocal, trifocal, or multifocal contact lenses that have powers to correct for one, two, or more distances (a range from near to far) in the same contact lens. Contact lenses offer cosmetic benefits and can be used by patients with active lifestyles. They have to be cleaned and replaced frequently to avoid redness, irritation, and eye infections.
- Conductive Keratoplasty (CK): CK changes the focusing ability of the eye by reshaping the cornea to improve near vision in one eye. The result is a surgically created type of monovision that can improve near vision. However, this effect is temporary because the correction can diminish over time. Monovision LASIK (laser-assisted in situ keratomileusis): Excimer laser is used to reshape the cornea to improve near vision in one eye and distance vision in the other. Monovision LASIK treatment may help you to see clearly both far away and close up without glasses or contact lenses. If you see well for far distance without glasses or contact lenses, only one of your eyes will be treated with LASIK to enable you to see close-up. Patients may require another treatment if results are not satisfactory. There are other risks involved with the LASIK procedure, such as, dry eyes, visual symptoms, including glare, halos, starbursts, ghost images/double vision, problems with night driving, and complications related to the flap cut into the cornea during the LASIK procedure.

2. KAMRA® INLAY

The KAMRA® inlay is small and thinner than a contact lens. The inlay is a 3.8 mm black film-like ring with a 1.6 mm opening in the center.

The KAMRA® inlay is intended for placement in the non-dominant eye of patients:

- between the ages of 45 and 60 years old
- who have not had cataract surgery
- who are unable to focus clearly on near objects or small print
- who do not need glasses or contact lenses for clear distance vision
- who need reading glasses with +1.00 to +2.50 diopters of power

The goal of having the KAMRA® inlay implanted into one eye is to give a clear range of vision from far to near with the use of both eyes without glasses or contact lenses. The KAMRA® inlay is typically implanted in the non-dominant eye during an out-patient procedure. It is placed within the first few layers of the cornea and centered over the pupil.

Reading vision may continue to improve over the next several months. However, everyone heals differently, so visual results may vary.

Unlike other surgical treatments to correct near vision, the KAMRA® inlay can be removed, and, in most cases, vision will return back to the way it was before the surgery occurred. However, this does not guarantee that your vision will return to exactly what it was before surgery or that your eye will not have permanent vision loss or scarring.

How Does it Work?

The design and mechanism of action of the KAMRA® inlay is based on the well-established concept of small-aperture optics. In cameras, depth of focus is controlled by reducing an adjustable opening (or aperture) through which light enters; the smaller the opening, the greater the depth of focus. This concept also applies to the human eye. The natural lens of an eye in someone who has presbyopia has difficulty focusing the light rays to make near objects clear, so their depth of focus is limited.

By implanting the KAMRA® inlay in one eye, it allows you to increase your depth of focus, while having a minimal effect on distance vision. Your non-inlay eye is left untouched. Both eyes work together to provide distance vision, while the inlay eye helps improve your near vision.

3. POTENTIAL RISKS

It is possible that KAMRA® inlay implantation may make your best-corrected vision with glasses or contact lenses and/or uncorrected distance vision worse than it was before surgery.

Caution: In some cases, after receiving the KAMRA® inlay, patients may still require glasses or contact lenses for some activities, such as trying to read tiny print or reading in dim lighting.

- **Vision and Eye Symptoms.** KAMRA® inlay implantation may cause or make worse problems with glare, halos, night vision, blurry vision, dryness, color disturbances, distortion, double vision, ghosting, and pain/burning. Some of these symptoms may be improved with additional treatment, including artificial tears, punctal plugs, repositioning of the KAMRA® inlay, or removal of the inlay. However, these symptoms may not resolve, even with treatment.

- **Contrast Sensitivity.** Contrast sensitivity refers to the ability of your visual system to distinguish between an object and its background and is most noticeable in low-light situations. KAMRA® inlay implantation may cause decreased contrast sensitivity in the implanted eye in situations such as when trying to read a menu in a dimly lit restaurant,

making your way through a darkened movie theater, or driving a car on a dimly lit road at night or under foggy conditions. There could be a further reduction in contrast if the inlay implanted eye and/or the fellow eye were to develop cataract, glaucoma, macular degeneration or if they were to be implanted with a multifocal intraocular lens (IOL).

- **Challenges Evaluating and Managing Eye Problems.** Tests to diagnose diseases in the retina (the innermost layer) of the eye with the KAMRA® inlay might take slightly longer and require some additional effort from the patient and the doctor to perform. Furthermore, if you were to develop glaucoma or a retinal problem, it is possible that your eye doctor may have difficulty evaluating the problem and/or administering treatment, and the inlay may need to be removed.

    - **Laser Treatments.** There are potential risks of damaging the eye and/or inlay with the use of some medical lasers to treat certain eye conditions. Your eye doctor may have to be especially careful when using a laser. Alternatively, the inlay may need to be removed prior to some laser treatments. Should you require laser treatment, please discuss these potential risks with your eye doctor.

- **Eye Infections.** There is a risk of infection to the cornea or other parts of the eye, as a result of the KAMRA® inlay implantation. If you develop an infection, your doctor will prescribe you eye drops until the infection has cleared.

- **Dry Eyes.** There is a risk that you may develop new dry eye symptoms or have your dry eye symptoms worsened after the procedure. As a result, you may have blurry vision, a dry “scratchy” sensation, pain, burning, or discomfort in your eye due to inadequate tears. If you experience dry eyes, you may be treated with artificial tears, prescription medications, and/or punctual plugs, depending on your symptoms.

- **Corneal Complications.** Other risks include, but are not limited to, complications related to your cornea, such as, scarring, clouding, infection, swelling, thinning with potential perforation (hole) of the cornea, and endothelial cell loss (loss of cells in the inner layer of the cornea).

    - **Cell Loss.** Loss of endothelial cells can lead to corneal swelling and eventual breakdown in the cornea, which can cause loss of vision, and potentially may require a corneal transplant (diseased cornea is replaced with healthy cornea from a donor).

    - **Thinning and Bulging of the Cornea.** There is a potential risk for your cornea to thin out and/or bulge out, if the inlay is implanted in a thin cornea (less than 500 microns in thickness). If you show signs of your cornea thinning and bulging, your doctor might choose to treat you with rigid gas permeable contact lenses or other specialty contact lenses. In a severe case, a corneal transplant might be necessary.

- **Cataracts.** There is a risk of developing cataract in the implant eye as a result of the normal aging process which could decrease the vision in the eye sooner and to a greater degree than if the inlay was not there. Cataract removal with intraocular lens (IOL) implantation is possible with the inlay in place. However, your surgeon may choose to remove the inlay before cataract removal and IOL implantation.

- **Increased Eye Pressure.** There is a potential risk for eye pressure to spike as a result of using eye drops that control the inflammation in the eye following the surgery. The clinical data showed that the average change in eye pressure was minimal with a wide variation in the degree of change before and after the inlay implantation. If your pressure increases as a result of the eye drops, your doctor will treat it by prescribing you another eye drop to decrease the eye pressure.

- **Vision Problems.** You may experience problems seeing after the surgery. In some cases, removal of the inlay will improve your vision but may take many months. In other cases, removal of the inlay will not improve your vision and the decreased vision could become permanent. Additionally, there is a potential risk for the focusing power of the eye to change causing blurry vision that may require you to wear glasses.

- **Visual Illusions.** The KAMRA® inlay may affect your ability to judge distances and locations of moving objects. Although it is likely that if you experience this in the immediate period after surgery, it will lessen over time. However, some patients may not ever fully adapt.

Contraindications

You should **NOT** have the KAMRA® inlay implanted if:

- You have severe dry eye;
- You have an active eye infection or inflammation;
- You have signs of keratoconus or keratoconus suspect, (corneal diseases characterized by general thinning and cone-shaped protrusion in center of cornea). A topographic map or image of your eye to be implanted shows that you have abnormalities related to the shape and/or surface of your eye;
- You do not have enough corneal thickness to safely have the procedure performed;
- You have a recent or recurring herpes eye infection or problems resulting from past infection;
- You have uncontrolled glaucoma;
- You have uncontrolled diabetes; or
- You have active autoimmune or connective tissue disease, such as, lupus or rheumatoid arthritis.

Warnings

There is reasonable evidence of a serious hazard if the KAMRA® inlay is implanted if:

- You have dry eyes, which may worsen following KAMRA® inlay implantation;
- You had a past herpes infection, which might affect your eyes following KAMRA® inlay implantation;
- You have controlled glaucoma, which may worsen with certain eye drops used following KAMRA® inlay implantation;
- You have had a significant change in your distance vision in the last 12 months, which might fluctuate further, and, therefore, might prevent you from experiencing an improvement in your near vision following implantation of the KAMRA® inlay;
- You have controlled autoimmune or connective tissue disease, which may affect wound healing following KAMRA® inlay implantation;
- You have a weakened immune system or you are on chronic steroids or other immunosuppressive therapy (treatment that weakens your immune system) that may affect wound healing following KAMRA® inlay implantation;
- You have controlled diabetes, which may affect wound healing following KAMRA® inlay implantation;
- You are taking isotretinoin, for example, for severe acne, which may cause changes to your vision following KAMRA® inlay implantation;
- You have any corneal dystrophy or corneal degeneration that may worsen and decrease your vision following KAMRA® inlay implantation;
- You have macular degeneration, retinal detachment, cataract, or any other disease in your eye that would compromise your vision and prevent you from experiencing an improvement in your near vision following implantation of the KAMRA® inlay;
- You have an irreversible decrease vision in either eye, e.g., resulting from amblyopia (or “lazy eye”; when the vision in one of your eyes is reduced because the eye and the brain are not working together), injury, disease or other abnormality, which might prevent you from experiencing an improvement in your near vision following implantation of the KAMRA® inlay;
- You are taking chronic medications known to worsen or cause severe dry eye. These medications include anti-histamines, beta-blockers, birth control pills, diuretics, drugs for the treatment of cardiac arrhythmia, and other medications. You should discuss all of the medications you are taking with your eye doctor and whether or not they may contribute to your risk of dry eye; or
- You frequently rub your eye after surgery, which may cause the KAMRA® inlay to dislodge following implantation.

Precautions

If you have any of the conditions below, talk to your doctor before you get the KAMRA® inlay. It is not known whether the KAMRA® inlay is safe and effective if you have any of the following conditions, as these were not specifically studied:

- You have blepharitis. Blepharitis is a condition that includes crusting of the lashes, often with burning, itching and irritation of the eyes and eye lids. It can increase the risk of infection and inflammation of the cornea following the KAMRA® inlay implantation;
- You have worn hard contact lenses within the last 6 months or soft contact lenses within a week of surgery;
- You have had previous eye surgery, such as a refractive procedure like PRK, RK, LASIK, or LASEK or another type of eye procedure like cataract surgery;
- You have a difference of 1.00 diopter (D) of power or more in your prescription measured before and after dilation of your eye. KAMRA® inlay implantation may result in poor vision;
- You have high eye pressure (ocular hypertension) and/or you may have glaucoma. KAMRA® inlay implantation may make following your condition more difficult;
- You are taking amiodarone hydrochloride used for various types of cardiac rhythm problems. You are taking sumatriptan used for the treatment of migraines and headaches.
- You have a family history of keratoconus, and any other degenerative corneal condition that may cause thinning or bulging of the cornea;
- You have a history of eye injury;
- You have a history of inactive eye infection or inflammation;
- You are not within the ages of 45 and 60 years old;
- You have difficulty seeing objects in your peripheral vision;
- You have endothelial cell counts of <2000 cells per square millimeter (units of cell density) counted on images taken using a special high-powered microscope;

KAMRA® While the following are potential risks, it is also not known whether the KAMRA inlay result in the following, since they were not studied:

- It is unknown whether your eyes working together in stereo and your depth perception are affected by implantation of the KAMRA® inlay, since these were not investigated in the clinical studies discussed in Section 7 of this booklet;
- Your ability to judge distances and locations of moving objects after surgery may also be affected;

In order to help lessen some of the risks of KAMRA® inlay implantation, you should avoid rubbing your eyes, wearing eye make-up, exercising, swimming, gardening, playing contact sports, smoking and being in dusty environments for at least the first week following surgery. These activities are NOT recommended during the first week after surgery at a minimum. Please check with your doctor for when you can resume these and other activities he or she may ask you to stop after surgery.

4. ARE YOU A GOOD CANDIDATE FOR THE KAMRA® INLAY?

You may be a good candidate for the KAMRA® inlay, if you:

- Are between the ages of 45 and 60;

- Have trouble seeing near objects clearly such as newspapers, books, menus, smartphones, and computer screens;
- Need reading glasses for near objects, but can see far objects fine;
- Are in good physical health;
- Find wearing reading glasses inconvenient;
- Are committed to following proper after care instructions; and
- Are committed to follow-up appointments as required.

5. WHAT YOU NEED TO KNOW ABOUT THE SURGERY

Before the Surgery

If you are interested in the KAMRA® inlay, you will first undergo a complete eye exam. The examination includes an assessment of your general health, including your medical history and any medications that you might be taking, as well as the condition of your eye for surgery. You will be tested to try to find out whether you will be able to get used to the differences between the vision in your right and left eyes after the KAMRA® inlay has been implanted in one eye. You will also be tested to determine if your cornea is thick enough for implantation of the KAMRA® inlay. You will need to make arrangements to be driven home after surgery, and you should not drive until your surgeon gives you approval.

On the Day of Surgery

Caution: Prior to surgery, your doctor will discuss the importance of your role in the procedure. Remaining still and focusing on the central light will help provide the best results.

During the procedure, you will be lying on your back and asked to focus on a light above your eye during placement of the inlay. Topical anesthetics, or numbing eye drops, are used to ensure there's no pain during surgery. Using a laser, a 'pocket' will be created in the first few layers of your cornea. If your surgeon verifies that your pocket is suitable for implantation, the inlay will be placed within the middle layers of the cornea. If your surgeon finds that the pocket is not at the right depth or that there is some other problem with how the pocket was created, then the inlay will not be implanted. Next, the surgeon will insert the inlay within the pocket over the center of your eye.

After Surgery

After the procedure is completed, your eye will be examined so that the surgeon can verify proper placement of the KAMRA® inlay. You will then be asked to return for examination the day after surgery and usually at one week and one month later. Additionally, your surgeon will also need to perform follow-up examinations for the first year following implantation. Your surgeon may request you to return for additional testing. At each scheduled examination, you will undergo a standard eye exam similar to the one performed that determined your suitability for surgery.

Also, if you feel that you are having any type of problem with your implanted eye, you should call the surgeon to request an appointment immediately. If you notice a decrease in your vision, you should contact your surgeon right away. You may need to have the inlay repositioned.

You should avoid rubbing your eye for at least a week, as this may dislodge the inlay or irritate the eye. You should also not wear eye make-up, exercise, swim, garden, play contact sports, be in dusty environments, or smoke for at least a week after surgery. Please discuss with your surgeon whether there are any other activities that you should avoid after surgery and when you can restart each activity.

It will be critical to use eye drops and antibiotic drops as prescribed by your surgeon. Written instructions for additional care after the surgery will be provided. It is important that you understand the instructions before leaving the clinic.

Most health insurance policies do not cover the KAMRA® inlay procedure for near vision correction.

6. SUMMARY OF IMPORTANT INFORMATION

- The KAMRA® inlay procedure is not risk-free. Please read this entire booklet, most importantly the sections on Potential Risks, before you agree to the procedure.
- The KAMRA® inlay procedure may not eliminate the need for reading glasses.
- The KAMRA® inlay procedure may cause blurred vision, difficulties with contrast sensitivity,problems with night vision, double vision, ghost images, glare, halos, and color disturbances. Your eye may also feel pain, dryness, burning, and discomfort and look red.
- Other risks you may experience include infection, swelling, thinning, or inflammation of the cornea, and changes in your vision.
- The KAMRA® inlay CAN be removed. During the clinical study, after removal of the inlay, vision generally returned to the level the patient had prior to the implantation with the KAMRA® inlay. However, this does not guarantee that your vision will return to exactly what it was before surgery or that your eye will not have permanent damage.
- You should not have the KAMRA® inlay implanted if you have:
    - severe dry eye
    - active infection or inflammation
    - keratoconus
    - abnormalities of the surface of your eye
    - a corneal that is not thick enough to safely perform the procedure.
    - recent or recurring herpes eye infection or abnormalities resulting from past herpes infection
    - uncontrolled glaucoma
    - uncontrolled diabetes
    - active autoimmune or connective tissue disease.

- Non-surgical alternatives to the KAMRA® inlay procedure include the use of reading glasses or contact lenses.
- Before considering the KAMRA® inlay procedure you should: 1) Have a complete eye examination and, 2) Talk with your eye surgeon about the alternatives to treatment, potential benefits, complications, risks, and time required for healing.

7. CLINICAL STUDIES

Two clinical studies have been conducted to evaluate the benefits and risks of surgery with the KAMRA® inlay. One of the studies (the pivotal clinical study) included 508 eyes of 508 study patients and followed them for 36 months, and was designed to evaluate the benefits and risks of the device on these patients. This study was extended to increase the follow-up time to 60 months for eligible returning patients who completed the pivotal study (continuation study). The confirmatory study was a study of 150 eyes of 150 study patients; the purpose of the confirmatory study was to confirm the initial findings from the pivotal study about the potential best way to perform the surgery.

Results of the pivotal study that was specifically designed to support FDA approval of the KAMRA® inlay to improve near vision in patients that have lost their ability to focus clearly on near objects and read small print are shown below. The results from continuation study are also shown below.

Patient Characteristics

Most patients in the study were Caucasian. No patients were under 45 years of age or over 60 years old. Approximately half of the patients were males and half were females. Approximately a third of the patients had the inlay implanted in their right eyes, and two thirds of them had the inlay implanted in their left eyes.

Effectiveness

Results of the clinical study of the KAMRA® inlay show that implantation of the KAMRA® inlay improves near vision, while far vision in the eye with the corneal inlay is only slightly decreased as a result of having the inlay in the eye.

Near Vision of Operated Eye Only Without Glasses Before And After Surgery

The target for effectiveness was set at 75% of the patients seeing 20/40 or better in their operated eye without glasses at 12 months. Before surgery, none (0/508) of the patients could see at this level. At 12 months after surgery, there were 83.5% (399/478) of the patients who could see 20/40 or better at near without glasses. This increased to 87.2% (380/436) of the patients at 24 months, 87.1% (363/417) at 36 months and 87.1% (175/201) at 60 months.

Near Vision of Both Eyes Together Without Glasses Before And After Surgery

Before surgery, 43.3% (220/508) of all study patients had near vision of both eyes together without glasses of 20/40 or better. After surgery, 91.8% (439/478) of all patients evaluated were 20/40 or better at 12 months, with 93.1% (406/436) at 24 months, 93.8% (391/417) at 36 months, and 94.5% (190/201) at 60 months having this level of vision.

Safety

The safety of the KAMRA® inlay was primarily assessed by evaluating the following:

- Preservation of best distance vision corrected with lenses:
    - Less than 5% of eyes should have a loss of two or more lines on an eye chart of best distance vision corrected with lenses that persists at 12 months.
    - Less than 1% of eyes should have best distance vision corrected with lenses worse than 20/40 at 12 months if they were 20/20 before surgery.
- Less than 1% of eyes should have corneal clouding at 12 months.
- Less than 5% of eyes should have astigmatism that increases by greater than 2.00 diopters of power from before surgery to 12 months after surgery.
- Adverse events related to the inlay should occur in no more than 5% of eyes. Any single adverse event related to the inlay should occur in no more than 1% of eyes.

Additional assessments of safety were also considered and are presented below.

Change in Best Distance Vision Corrected with Lenses After Surgery

At any time after surgery, there were fewer than 2% of eyes that had a persistent loss of two or more lines of best distance vision corrected with lenses. There were 0.6% (3/479) of such eyes at 12 months, 1.1% (5/442) at 24 months, 1.4% (6/424) at 36 months, and 1.5% (2/202) at 60 months. The average change for the implanted eye in terms of best distance vision corrected with lenses after surgery was no more than half a line over the course of the 36-month study when compared to before surgery.

Best Distance Vision Corrected with Lenses After Surgery

All patients had 20/20 or better distance vision corrected with lenses before surgery. There were no patients (0/479) who had best distance vision corrected with lenses worse than 20/40 at 12, 36, and 60 months. At 24 months, there was 1 patient (0.2%; 1/442) with best distance vision corrected with lenses worse than 20/40.

At all times after surgery, close to 99% of the patients had 20/25 or better best distance vision corrected with lenses in their eyes with the inlay:

- 99.2% (475/479) at 12 months

- 98.0% (433/442) at 24 months
- 99.1% (420/424) at 36 months
- 97.5% (197/202) at 60 months.

More than 91% of the patients had 20/20 or better best distance vision corrected with lenses in their eyes with the inlay at any time after surgery:

- 93.9% (450/479) at 12 months
- 94.1% (416/442) at 24 months
- 94.8% (402/424) at 36 months
- 91.6% (185/202) at 60 months.

Corneal Clouding and Astigmatism

There were no eyes (0/479) with corneal clouding with decreased vision at 12 months, 0.2% (1/442) at 24 months, 0.2% (1/424) at 36 months, and 0.5% (1/196) at 60 months.

There were no eyes (0/477) with astigmatism that increased by more than 2.00 diopters of power at 12 months after surgery, 0.2% (1/441) at 24 months, 0.5% (2/423) at 36 months and 0% (0/201) at 60 months.

Change in Near Vision and Distance Vision without Glasses After Surgery

The average gain in near vision without glasses after surgery was 3 lines of near vision. At 12 months, there were 74.5% (356/478) of patients who gained 2 or more lines of near vision. The average change in distance vision without glasses after surgery was a decrease of half a line of distance vision. At 12 months, there were 27.6% (132/478) of patients who had a decrease of 1 or more lines of distance vision. When the near and distance vision without glasses results are looked at in combination, the proportion of patients who did not gain 2 lines of near vision and who lost more than 1 line of distance vision was 10.5% (50/478) at 12 months.

Adverse Events and Complications

Some patients from the clinical study experienced adverse events that may relate to the inlay implantation procedure or to the presence of the inlay in the eye. All adverse events in the eyes related or unrelated to the inlay or the surgery are reported here. In the majority of eyes, the adverse events resolved without any permanent problems in the eye.

The following adverse events occurred on the surgery day (number of patients = 508):

- Allergic drug reaction 1 eye, 0.2%

- Damage to the surface of cornea: 2 eyes, 0.4%
- Flap complication: 2 eyes, 0.4%

The cumulative rates for the adverse events that occurred after surgery through the 36-month study course are as follows (number of patients = 508):

- Debris over inlay: 1 eye, 0.2%
- Debris over inlay with defect in the cornea: 1 eye, 0.2%
- Cells in the inlay pocket with ≥ 2 line loss in vision: 1 eye, 0.2%
- Growth of epithelial cells into the inlay pocket: 3 eyes, 0.6%
- Folds under the flap: 1 eye, 0.2%
- Infection at pocket opening: 1 eye, 0.2%
- Inflammation of the cornea: 6 eyes, 1.2%
- Epithelial defect (2 to 5 mm): 1 eye, 0.2%
- Small surface defects of the cornea: 2 eyes, 0.4%
- Scratch on the cornea: 2 eyes, 0.4%
- Corneal clouding at 6 months & beyond with ≥ 2 line loss in vision: 4 eyes, 0.8%
- Swelling of the cornea (one month or later): 1 eye, 0.2%
- Ulcer of the cornea: 1 eye, 0.2%
- Thinning of the cornea because of injury to the eye: 1 eye, 0.2%
- Redness of the eye due to inflammation: 11 eyes, 2.2%
- Inflammation of the iris: 3 eyes, 0.6%
- Eyelid inflammation: 1 eye, 0.2%
- Eye pressure increase: 17 eyes, 3.3%
- Decrease of > 2 lines of vision at 3 months or later: 30 eyes, 5.9%
- Symptoms of (as reported by the eye surgeon):
    - Dryness: 2 eyes, 0.4%
    - Overlapping images: 1 eye, 0.2%
    - Glare: 1 eye, 0.2%
    - Halos: 2 eyes, 0.4%
    - Pain in the eye: 4 eyes, 0.8%
- Second surgery:
    - Moving the inlay: 6 eyes, 1.2%
    - Removing epithelial ingrowth: 2 eyes, 0.4%
    - Washing under flap: 1 eye, 0.2%
    - Removing the inlay: 44 eyes, 8.7%
    - Additional refractive correction: 3 eyes, 0.6%
- Other
    - Herpes Zoster: 1 eye, 0.2%
    - Cataract: 1 eye, 0.2%
    - Swelling on eyelid: 1 eye, 0.2%
    - Tear gland dysfunction: 1 eye, 0.2%
    - Droopy eyelid: 1 eye, 0.2%

- Splitting of the retinal layers: 1 eye, 0.2%
- Loose conjunctiva: 1 eye, 0.2%
- Calcium deposit in the inner lining of the eyelid: 1 eye, 0.2%
- Foreign matter in the eye: 2 eyes, 0.4%

The following adverse events occurred during the extended follow-up period from 48 months to 60 months after surgery. This is the number of events that have occurred in the 269 subjects enrolled in this ongoing continuation study through November 25, 2014 (number of patients = 269):

- Growth in the conjunctiva: 1 eye, 0.4%
- Small surface defects of the cornea: 1 eye, 0.4%
- Eyelid inflammation: 1 eye, 0.4%
- Changes in the retina, the tissue lining the back of the eye: 1 eye, 0.4%
- Decrease of > 2 lines of vision: 10 eyes, 3.7%
- Second surgery
  - Additional refractive correction: 2 eyes, 0.8%
  - Removing the inlay: 1 eye, 0.4%

The following is related to inlay removals. The KAMRA® inlay can be removed. Forty-five (8.9%; 45/508) patients in the clinical study elected to have their inlay removed. The reasons for removal were as follows (number of patients = 45):

- Appearance of the inlay in the eye: 2 eyes (4.4%; 2/45)
- Medically indicated: 4 eyes (8.9%; 4/45)
- Visual complaints: 39 eyes (86.7%; 39/45)

All but one patient in the study had 20/20 or better best distance vision corrected with lenses after inlay removal; the one patient who had 20/25 best distance vision corrected with lenses after removal had a small scar in the cornea.

Loss of Contrast Sensitivity in the Eyes with the Inlay

Contrast sensitivity refers to the ability of your visual system to distinguish between an object and its background (like light grey letters on a slightly lighter background). Contrast sensitivity analyses were performed on 335 patients. On average, the eyes with the inlay experienced some decrease in the contrast sensitivity under daylight conditions and slightly more decrease in the contrast sensitivity under night conditions after surgery as compared to before surgery, with some patients having much greater losses. Contrast sensitivity in both eyes together showed very minimal decrease under both daylight and night conditions.

Endothelial Cell Counts

The endothelium is a single layer of cells along the back surface of the cornea responsible for pumping fluid out of the cornea to keep it clear. Endothelia cells are normally lost very slowly over time at a rate estimated to be between 0.6% - 1% per year. Endothelial cell loss due to

the surgery was 5.0% in the first year. The endothelium of the cornea stabilized from the surgical effects of KAMRA® inlay placement between 9-12 months, after which the rate of loss was similar to that due to normal aging.

Visual Fields

The visual field is the surrounding area that the eye can see when it is focused on a single point. The patients were tested to determine the visual sensitivity and shape of the field of vision. Visual field testing was performed for both eyes of all patients before surgery to screen for potential visual field abnormalities. After surgery, 224 patients participated in the visual field testing subgroup of the pivotal clinical study. Inlay implanted eyes had a slight decrease in the overall sensitivity of the visual field after surgery as compared to before surgery on average. There was a slightly greater irregularity in the shape of the visual field after surgery in the KAMRA® inlay implanted eyes as compared to the other eyes of patients not implanted with an inlay on average. Some patients had much greater changes in the visual field than the average change. The reasons for the changes in the visual field are not completely clear.

Stability of Manifest Refraction

Manifest refraction is the measure of what lens powers the eye needs in order to see at its best. The stability of the refraction was measured by evaluating the change in the refraction from visit to visit to see if implanting the KAMRA® inlay affected stability. The manifest refraction was found to be unstable after implantation of the inlay, but became stable by about 24 months, based upon the information from the majority of patients. For some patients, the manifest refraction continued to be unstable at their last visit.

Eye Symptoms

Some patients from the pivotal clinical study experienced eye symptoms. The symptoms from patients in the study were collected using the AcuFocus Corneal Inlay Presbyopic Questionnaire (ACIPQ). A summary of the frequency of symptoms at 12, 24, and 36 months for all patients is reported in Table 1 below. Please note that care must be taken when interpreting results from the ACIPQ, since this questionnaire was not found by the FDA to be reliable.

Table 1: Frequencies of All Symptoms Reported Before Surgery and After Surgery at 12, 24, and 36 Months For All Patients

	Preop # reported / total #	**12 Months # reported / total #**	**24 Months # reported / total #**	**36 Months # reported / total #**
Blurry/Fluctuating Vision	101/508 (20%)	198/478 (41%)	176/440 (40%)	154/424 (36%)
Color Disturbances	13/508 (3%)	54/478 (11%)	31/440 (7%)	17/424 (4%)
Distortion	25/508 (5%)	68/478 (14%)	65/440 (15%)	48/424 (11%)
Dryness	64/508 (13%)	240/478 (50%)	229/440 (52%)	210/424 (50%)
Glare	76/508 (15%)	178/478 (37%)	135/440 (31%)	102/424 (24%)
Halos	27/508 (5%)	197/478 (41%)	151/440 (34%)	126/424 (30%)
Night Vision Problems	96/508 (19%)	200/478 (42%)	169/440 (38%)	159/424 (38%)
Pain/Burning	26/508 (5%)	64/478 (13%)	53/440 (12%)	60/424 (14%)
Double Vision	10/508 (2%)	53/478 (11%)	43/440 (10%)	40/424 (9%)
Ghost/Overlapping Images	14/508 (3%)	93/478 (19%)	74/440 (17%)	64/424 (15%)

During the healing period, 9% to 48% of patients without eye symptoms before surgery developed eye symptoms within the first six months after surgery. Of the patients who did not have the symptom before surgery, from 27 to 76% developed the symptom 6 months or later after surgery as shown in Table 2 below. The majority of these symptoms were mild.

Table 2: Proportion of Patients Reporting No Symptom Before Surgery That Reported the Symptom at 6 Months or Later After Surgery For All Patients

	At 6 months or later Postoperatively **# reported after surgery / total # reporting no symptom before surgery**
Blurry/Fluctuating Vision	296/407 (73%)
Color Disturbances	114/495 (23%)
Distortion	171/483 (35%)
Dryness	336/444 (76%)
Glare	245/432 (57%)
Halos	286/481 (59%)
Night Vision Problems	247/412 (60%)
Pain/Burning	152/482 (32%)
Double Vision	136/498 (27%)
Ghost/Overlapping Images	192/494 (39%)

For each symptom collected with the ACIPQ, the proportion of patients who reported no symptoms before surgery and who later reported moderate or severe symptoms during the first year, the second year, and the third year following surgery are presented in Table 3 below. The proportion reporting symptoms seemed to decrease over time.

Table 3: Proportion of Patients Developing New Symptoms (Moderate or Severe) After Surgery in Patients Reporting No Symptoms Before Surgery For All Patients

	3-12 Months **# reported after surgery / total # reporting no symptom before surgery**	**18-24 months** **# reported after surgery / total # reporting no symptom before surgery**	**30-36 months** **# reported after surgery / total # reporting no symptom before surgery**
Blurry/Fluctuating Vision	172/407 (42%)	115/407 (28%)	88/407 (22%)
Color Disturbances	51/495 (10%)	16/495 (3%)	10/495 (2%)
Distortion	73/483 (15%)	55/483 (11%)	30/483 (6%)
Dryness	185/444 (42%)	148/444 (33%)	124/444 (28%)
Glare	155/432 (36%)	76/432 (18%)	70/432 (16%)
Halos	183/481 (38%)	103/481 (21%)	79/481 (16%)
Night Vision Problems	139/412 (34%)	97/412 (24%)	78/412 (19%)
Pain/Burning	46/482 (10%)	30/482 (6%)	25/482 (5%)
Double Vision	64/498 (13%)	29/498 (6%)	28/498 (6%)
Ghost/Overlapping Images	101/494 (20%)	56/494 (11%)	51/494 (10%)

Surgical Procedure

When the results were compared among the different ways the surgery was performed, one way of doing the surgery seemed somewhat better than the rest. Therefore, this way of performing the surgery is the one now included in the instructions for use of the KAMRA® inlay. The patients who underwent the surgery performed in this way are known as the 6x6 pocket subgroup. Their results are presented below.

In general, this subgroup of patients (166 out of 508 patients in the pivotal clinical study) seemed to have better stability of the focusing power of the eye for distance. More than 95% of the patients had no more than 1.00 diopter of change in their refraction between 18-24, 24-30, and 30-36 months, and 93.3% had no more than this amount of change between 48 and 60 months.

There were 135/153 (88.2%) patients who could see without glasses at 20/40 or better at 12 months, 140/149 (94.0%) at 24 months, 131/145 (90.3%) at 36 months and 63/75 (84.0%) at 60 months. These percentages were higher than they were for all the study subjects together, except at 60 months.

No patients in this subgroup experienced worse than 20/40 best distance vision with lenses or increased astigmatism more than 2.00 diopters of power at any time during the study. There were fewer than 1.5% of eyes that had a persistent loss of two or more lines of best distance vision corrected with lenses, with none at 12 and 24 months, 1.4% (2/146) at 36 months, and 1.3% (1/75) at 60 months.

The cumulative rates of adverse events that occurred after surgery through the 36-month study course are as follows (number of patients in subgroup = 166):

- Debris over inlay: 1 eye, 0.6%
- Inflammation of the cornea: 1 eye, 0.6%
- Epithelial defect (2 to 5 mm): 1 eye, 0.6%
- Small surface defects of the cornea: 2 eyes, 1.2%
- Scratch on the cornea: 1 eye, 0.6%
- Redness of the eye due to inflammation: 7 eyes, 4.2%
- Eyelid inflammation: 1 eye, 0.6%
- Eye pressure increase: 4 eyes, 2.4%
- Decrease of > 2 lines of vision month 3 or later: 10 eyes, 6.0%
- Symptoms of (as reported by the eye surgeon):
    - Pain in the eye: 1 eye, 0.6%
- Second surgery:
    - Moving the inlay: 2 eyes, 1.2%
    - Removing the inlay: 7 eyes, 4.2%
- Other
    - Herpes Zoster: 1 eye, 0.6%
    - Splitting of the retinal layers: 1 eye, 0.6%
    - Calcium deposit in the inner lining of the eyelid: 1 eye, 0.6%
    - Foreign matter in the cornea: 1 eye, 0.6%

This subgroup had fewer patients who had inlays removed. As of November 25, 2014, there were 4.8% (8/166) of patients in this subgroup who had removals. The reasons for removal were as follows (number of patients = 8):

- Appearance of the inlay in the eye: 1 eye (1.3%, 1/8)
- Medically indicated: 1 eye (1.3%, 1/8)
- Visual complaints: 6 eyes (75.0%, 6/8)

All patients in this subgroup who had the inlay removed had 20/20 or better best distance vision corrected with lenses after removal.

Lastly, a summary of the frequency of symptoms reported on the ACIPQ before surgery and after surgery at 12, 24, and 36 months for this 6x6 pocket subgroup are presented in Table 4:

Table 4: Frequencies of All Symptoms Reported Before Surgery and After Surgery at 12, 24, and 36 Months For 6x6 Pocket Subgroup

	Preop **# reported / total #**	**12 Months** **# reported / total #**	**24 Months** **# reported / total #**	**36 Months** **# reported / total #**
Blurry/Fluctuating Vision	19/166 (11%)	56/154 (36%)	70/149 (47%)	56/146 (38%)
Color Disturbances	4/166 (2%)	19/154 (12%)	9/149 (6%)	4/146 (3%)
Distortion	4/166 (2%)	16/154 (10%)	21/149 (14%)	16/146 (11%)
Dryness	8/166 (5%)	73/154 (47%)	75/149 (50%)	70/146 (48%)
Glare	14/166 (8%)	47/154 (31%)	43/149 (29%)	34/146 (23%)
Halos	9/166 (5%)	56/154 (36%)	42/149 (28%)	37/146 (25%)
Night Vision Problems	20/166 (12%)	57/154 (37%)	52/149 (35%)	56/146 (38%)
Pain/Burning	7/166 (4%)	17/154 (11%)	17/149 (11%)	18/146 (12%)
Double Vision	3/166 (2%)	19/154 (12%)	15/149 (10%)	15/146 (10%)
Ghost/Overlapping Images	3/166 (2%)	27/154 (18%)	24/149 (16%)	21/146 (14%)

During the healing period, 7% to 42% of patients without eye symptoms before surgery developed eye symptoms within the first six months after surgery. Of the patients who did not have the eye symptom before surgery, from 22% to 77% reported the symptom after surgery as shown in Table 5 below.. The majority of these symptoms were mild.

Table 5: Proportion of Patients Reporting No Symptom Before Surgery That Reported The Symptom at 6 Months or Later After Surgery For 6x6 Pocket Subgroup

	At 6 months or later Postoperatively # reported after surgery / total # reporting no symptom before surgery
Blurry/Fluctuating Vision	105/147 (71%)
Color Disturbances	35/162 (22%)
Distortion	55/162 (34%)
Dryness	122/158 (77%)
Glare	76/152 (50%)
Halos	81/157 (52%)
Night Vision Problems	87/146 (60%)
Pain/Burning	54/159 (34%)
Double Vision	44/163 (27%)
Ghost/Overlapping Images	54/163 (33%)

For each symptom collected with the ACIPQ, the proportion of patients in the 6x6 pocket subgroup who reported no symptoms before surgery that later reported moderate or severe symptoms during the first year, the second year, and third year following surgery are presented in Table 6 below. The symptoms did not worsen over time.

Table 6: Proportion of Patients Developing New Symptoms (Moderate or Severe) After Surgery in Patients Reporting No Symptoms Before Surgery For 6x6 Pocket Subgroup

	3-12 Months **# reported after surgery / total # reporting no symptom before surgery**	**18-24 months** **# reported after surgery / total # reporting no symptom before surgery**	**30-36 months** **# reported after surgery / total # reporting no symptom before surgery**
Blurry/Fluctuating Vision	49/147 (33%)	48/147 (33%)	39/147 (27%)
Color Disturbances	10/162 (6%)	6/162 (4%)	3/162 (2%)
Distortion	20/162 (12%)	20/162 (12%)	10/162 (6%)
Dryness	57/158 (36%)	50/158 (32%)	40/158 (25%)
Glare	44/152 (29%)	18/152 (12%)	19/152 (13%)
Halos	43/157 (27%)	30/157 (19%)	26/157 (17%)
Night Vision Problems	38/146 (26%)	33/146 (23%)	29/146 (20%)
Pain/Burning	11/159 (7%)	10/159 (6%)	4/159 (3%)
Double Vision	18/163 (11%)	10/163 (6%)	10/163 (6%)
Ghost/Overlapping Images	26/163 (16%)	14/163 (9%)	15/163 (9%)

Results from the Confirmatory Clinical Study

The purpose of the confirmatory study was to confirm the initial findings from the pivotal study about the potential best way to perform the surgery.

The confirmatory study effectiveness results were slightly better than those for the overall pivotal study. In general, while the types of adverse events seen in the two studies were similar, the rates of adverse events for those events that occurred at a rate greater than 1% were somewhat greater in the confirmatory study than in the pivotal study.

8. PATIENT ASSISTANCE INFORMATION

PRIMARY EYE CARE PROFESSIONAL

Name:
Address:
Telephone Number:

SURGEON

Name:
Address:
Telephone Number:

LOCATION WHERE TREATMENT WAS DONE

Name:
Address:
Telephone Number:

MANUFACTURER

AcuFocus, Inc.
32 Discovery, Suite 200
Irvine, CA 92618
(949) 585-9511

CUSTOMER SERVICE

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