

Johnson & Johnson Vision

Clinical Study Protocol

Evaluation of Electronic LogMAR Visual Acuity and Contrast Sensitivity in a Population of Contact Lens Wearers.

Protocol CR-5968

Version: 3.0, Amendment 2.0

Date: 11-JUL-2017

Investigational Products: ACUVUE OASYS® 1-Day with HydraLuxe™

Key Words: Senofilcon A, ACUVUE OASYS® 1-Day with HydraLuxe™, silicone hydrogel, daily disposable, non-dispensing, electronic logMAR visual acuity, qCSF, contrast sensitivity

Statement of Compliance to protocol, GCP and applicable regulatory guidelines:

This trial will be conducted in compliance with the protocol, the International Conference on Harmonization Good Clinical Practice E6 (ICH-GCP), ISO 14155, the Declaration of Helsinki, and all applicable regulatory requirements.

Confidentiality Statement:

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PROTOCOL TITLE, NUMBER, VERSION

Title: Evaluation of Electronic LogMAR Visual Acuity and Contrast Sensitivity in a Population of Contact Lens Wearers.

Protocol Number: CR-5968

Version: 3.0, Amendment 2.0

Date: 11-JUL-2017

SPONSOR NAME AND ADDRESS

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Jacksonville, FL 32256

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The Medical Monitor must be notified by the clinical institution/site by e-mail, fax, or telephone within 24 hours of learning of a Serious Adverse Event. The Medical Monitor may be contacted during business hours for adverse event questions. General study related questions should be directed towards your assigned clinical research associate.

The Medical Monitoring Plan is maintained as a separate document and included in the Trial Master File.

AUTHORIZED SIGNATURES

The signature below constitutes the approval of this protocol and the attachments, and provides the necessary assurances that this trial will be conducted according to all stipulations of the protocol, including all statements regarding confidentiality, and according to local legal and regulatory requirements and applicable U.S. federal regulations, ICH guidelines, ISO 14155 and the Declaration of Helsinki.

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Approver	See Electronic Signature Report Kathrine Osborn, MS, OD, FAAO Director, Global Medical Affairs	_____ DATE

CHANGE HISTORY

Version	Originator	Description of Change(s) and Section Number(s) Affected	Date
1.0	Chantal Coles-Brennan	Original Protocol	01-Jun-2017
2.0	Chantal Coles-Brennan	Updated Introduction and Background Section and Clarified Procedural Section	26-Jun-2017
3.0	Chantal Coles-Brennan	Removal of [REDACTED] and added Work Aid: Efron Grading Scales for Contact Lens Complications	11-Jul-2017

SYNOPSIS

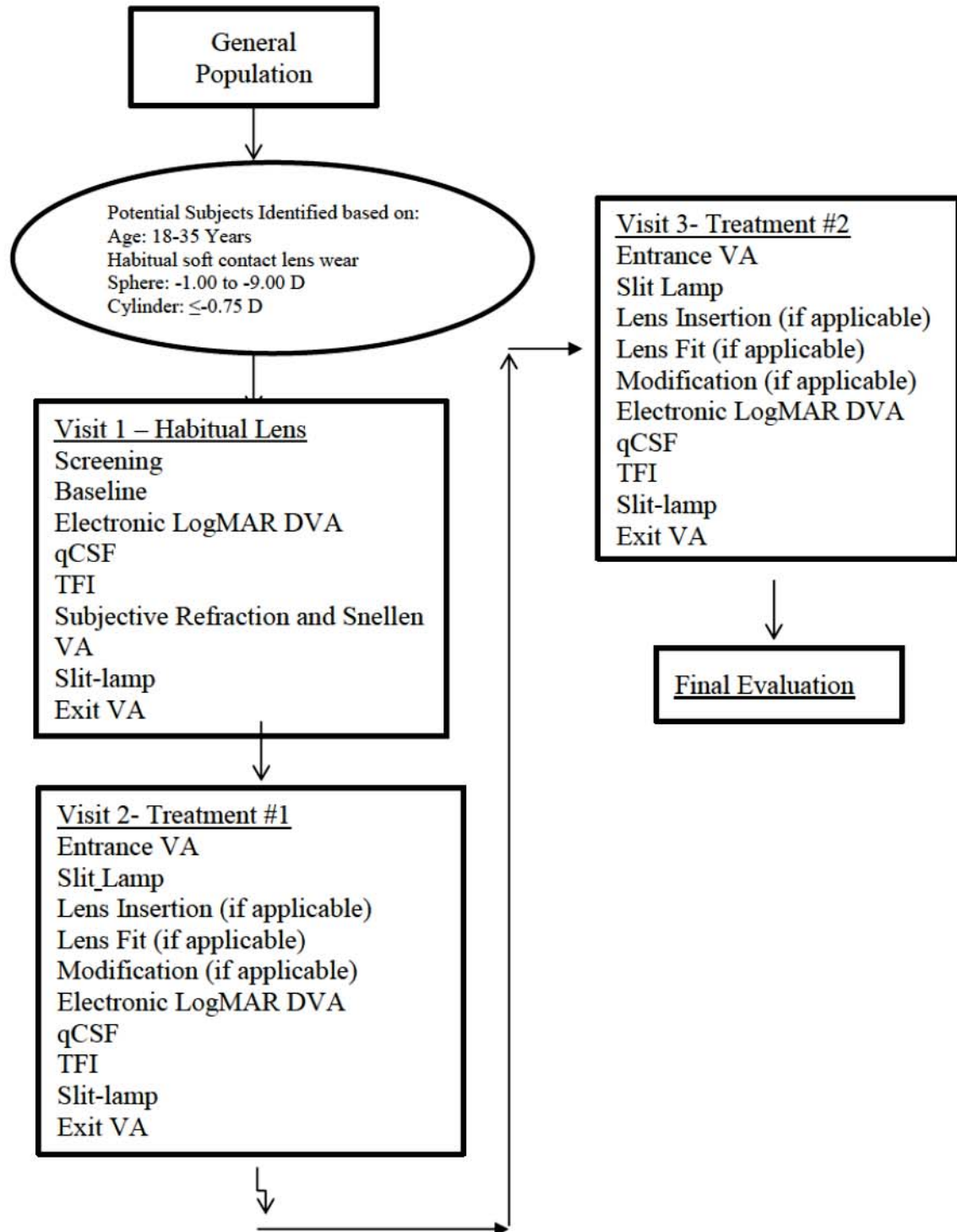
Protocol Title	Evaluation of Electronic LogMAR Visual Acuity and Contrast Sensitivity in a Population of Contact Lens Wearers.
Sponsor	JJVC, 7500 Centurion Parkway, Jacksonville, FL 32256
Clinical Phase	Post Marketing (Marketing claims, registry, post marketing surveillance), Phase 4
Trial Registration	This study will be registered on ClinicalTrials.gov by the Sponsor
Test Article(s)	Investigational Products: ACUVUE OASYS® Brand 1-Day Contact Lenses with HydraLuxe™ Technology (AO1D) Control Products: <i>spherocylindrical refraction with trial frame (SCR)</i>
Wear and Replacement Schedules	Wear Schedule: Daily wear Replacement Schedule: Daily disposable
Objectives	<p>Intent of this study is to evaluate the visual performance of AO1D.</p> <p>The primary objective of the study is to assess electronic LogMAR Visual Acuity (VA) under high luminance, low contrast (HLLC) and low luminance high contrast (LLHC) in subjects randomly fit with: (i) ACUVUE OASYS® 1-Day, and (ii) their best corrected trial frame spherocylindrical refraction.</p> <p>The secondary objective is to compare Contrast sensitivity as measured through the qCSF (by Adaptive Sensory Technology's Sentio Platform details on section 1.Introduction And Background) for the same 2 testing conditions listed above.</p> <p>Other Objective: Obtain tear film interferometry measurements with and without contact lens wear. Investigate feasibility of tear film interferometry metric correlation to visual acuity.</p>
Study Endpoints	<p>Primary endpoint: electronic LogMAR VA,</p> <p>Secondary endpoint: qCSF</p> <p>Other observation: Tear Film Interferometry (TFI)</p>

Study Design	<p>This is a bilateral, non-dispensing, randomized-controlled, 2x2 crossover, single-masked, single-site study. There will be a total of 3 visits and the study endpoints will be measured in all subjects under the two testing conditions (AO1D, SCR) sequentially in separate visits based on the randomization scheme.</p> <p>Visit 1 (~2 hours): Wearing habitual lenses.</p> <p>Screening,</p> <p>Baseline evaluation: Electronic LogMAR VA, CSF, TFI <u>with habitual lenses on.</u></p> <p>Lenses off best corrected spherocylindrical refraction (SCR), with best correctable VA.</p> <p>Slit lamp findings.</p> <p>Visits 2, 3: Randomly assigned to (i) trial frame SCR or (ii) AO1D, repeating electronic logMAR VA, CSF, TFI</p>
Sample Size	45 subjects enrolled 42 to complete
Study Duration	4 months from FSFV to LSLV
Anticipated Study Population	<p>Current soft contact lens wearers 18-35 years with -0.75 D or less of cylinder in each eye and not currently wearing AO1D</p> <ul style="list-style-type: none"> • -1.00 to -6.00 (in 0.25 increments) • -6.00 to -9.00 (in-0.50 increments)

Eligibility Criteria	<p>Potential subjects must satisfy all of the following criteria to be enrolled in the study:</p> <ol style="list-style-type: none"> 1. The subject must read, understand, and sign the STATEMENT OF INFORMED CONSENT and receive a fully executed copy of the form 2. Appear able and willing to adhere to the instructions set forth in this clinical protocol 3. Between 18 and 35 (inclusive) years of age at the time of screening 4. The subject must be habitual contact lens wearers (defined as minimum 6 hours per day, 5 days a week over the last month) 5. The subject must meet all of the following three criteria: <ol style="list-style-type: none"> a. The eyes' spherical equivalent distance refraction must be in the range of -1.00 to -9.00 D (inclusive) b. The eyes' refractive cylinder must be less than or equal to -0.75 DC c. Each eye must have best corrected visual acuity of 20/25 or better. 6. The subject must have normal eyes (i.e., no ocular medications or infections of any type) <p>Potential subjects who meet any of the following criteria will be excluded from participating in the study:</p> <ol style="list-style-type: none"> 1. Currently pregnant or lactating 2. Any systemic disease (e.g., Sjögren's Syndrome), allergies, infectious disease (e.g., hepatitis, tuberculosis), contagious immunosuppressive diseases (e.g., HIV), autoimmune disease (e.g. rheumatoid arthritis), or other diseases, by self-report, which are known to interfere with contact lens wear and/or participation in the study 3. Use of systemic medications (e.g., chronic steroid use) that are known to interfere with contact lens wear or may impact the functioning of the tear film (e.g., Isotretinoin) 4. Any ocular allergies, infections or other ocular abnormalities that are known to interfere with contact lens wear and/or participation in the study. This may include, but not be limited to entropion, ectropion, extrusions, chalazia, recurrent styes, glaucoma, history of recurrent corneal erosions, aphakia, or corneal distortion
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	<ol style="list-style-type: none"> 5. Any current use of ocular medication 6. Any previous, or planned (during the course of the study) ocular surgery (e.g., radial keratotomy, PRK, LASIK, etc.) 7. Any Grade 3 or greater slit lamp findings (e.g., edema, corneal neovascularization, corneal staining, tarsal abnormalities, conjunctival injection) on the Efron scale 8. Any previous history or signs of a contact lens-related corneal inflammatory event (e.g., past peripheral ulcer or round peripheral scar), or any other ocular abnormality that would contraindicate contact lens wear 9. Any known hypersensitivity or allergic reaction to contact lens care products 10. Participation in any contact lens or lens care product clinical trial within 30 days prior to study enrollment 11. Employee of clinical site (e.g., Investigator, Coordinator, Technician) 12. Current wearers of AO1D brand contact lenses
Disallowed Medications/Interventions	Per exclusion criteria
Measurements and Procedures	Electronic logMAR visual acuity, quick Contrast Sensitivity Function, Tear Film Interferometry under each of the 2 testing treatments
Microbiology or Other Laboratory Testing	No microbiology or laboratory testing required in this study. See appended work-aid for Tear Film Interferometry image analysis.
Study Termination	The occurrence of one or more Unanticipated Adverse Device Effect (UADE), or any SAE where relationship to study agent cannot be ruled out, will result in stopping further dispensing investigational product. In the event of a UADE or SAE, the Sponsor Medical Monitor may unmask the treatment regimen of subject(s) and may discuss this with the Principal Investigator before any further subjects are enrolled.
Ancillary Supplies/ Study-Specific Materials	None (non-dispensing)
Principal Investigator(s) and Study Institution(s)/Site(s)	A full list of Principal Investigators, clinical sites, and institutions is kept separately from the Study Protocol and is included in the study Trial Master File.

Figure 1: Study Flowchart



COMMONLY USED ABBREVIATIONS AND DEFINITIONS OF TERMS

ADD	Plus Power Required For Near Use
ADE	Adverse Device Effect
AE	Adverse Event/Adverse Experience
BCVA	Best Corrected Visual Acuity
BSCVA	Best Spectacle Corrected Visual Acuity
CFR	Code of Federal Regulations
CLUE	Contact Lens User Experience
COAS	Complete Ophthalmic Analysis System
COM	Clinical Operations Manager
CRA	Clinical Research Associate
CRF	Case Report Form
CRO	Contract Research Organization
CT	Center Thickness
CTP	Clinical Technical Procedure
D	Diopter
DMC	Data Monitoring Committee
eCRF	Electronic Case Report Form
EDC	Electronic Data Capture
ETDRS	Early Treatment Diabetic Retinopathy Study
FDA	Food and Drug Administration
GCP	Good Clinical Practice
HIPAA	Health Insurance Portability and Accountability Act
IB	Investigator's Brochure
ICF	Informed Consent Form
ICH	International Conference on Harmonization
IDE	Investigational Device Exemption
IEC	Independent Ethics Committee
IRB	Institutional Review Board
ISO	International Organization for Standardization
ITT	Intent-to-Treat
JJVC	Johnson & Johnson Vision Care, Inc.
LC	Limbus Center
LogMAR	Logarithm of Minimal Angle of Resolution
MedDRA®	Medical Dictionary for Regulatory Activities
MOP	Manual of Procedures
NB	Nota Bene (pay attention)
NIH	National Institutes of Health
OD	Right Eye
OHRP	Office for Human Research Protections
OHSR	Office for Human Subjects Research
OS	Left Eye
OU	Both Eyes
PD	Protocol Deviation
PHI	Protected Health Information

PI	Principal Investigator
PIG	Patient Instruction Guide
PQC	Product Quality Complaint
PRO	Patient Reported Outcome
QA	Quality Assurance
QC	Quality Control
SAE	Serious Adverse Event/Serious Adverse Experience
SAP	Statistical Analysis Plan
SAS	Statistical Analysis System
SD	Standard Deviation
SOP	Standard Operating Procedure
UADE	Unanticipated Adverse Device Effect
USADE	Unanticipated Serious Adverse Device Effect
VA	Visual Acuity

1. INTRODUCTION AND BACKGROUND

[REDACTED] was able to demonstrate statistically significant differences in LogMAR VA and quick Contrast Sensitivity function (qCSF) for ACUVUE OASYS® Brand Contact Lenses 1-Day with HydraLuxe™ Technology when compared to a positive Control (ACUVUE OASYS® Brand Contact Lenses 1-Day with HydraLuxe™ Technology with an added +0.25 D) and to ACUVUE OASYS®. This study will continue the investigation looking into the visual performance of ACUVUE OASYS® 1-Day compared to spectacles, in a myopic population including high myopes, through electronic LogMAR VA (eVA), qCSF as well as other observations such as tear film interferometry (TFI).

The qCSF was developed by Adaptive Sensory Technology© which uses the AST Sentio Platform for clinical testing of contrast sensitivity.² It incorporates the qCSF algorithm aimed to improve usability and comfort, while maintaining laboratory-grade precision of the test. The AST Sentio Platform is a low-risk, class I, 510(k)-exempt device that has received CE marking for marketing in Europe and is currently in the process of obtaining FDA clearance in the United States. This newer technique was chosen for this clinical trial due to its ability to deliver precise, accurate results under different conditions within a very short time (~40 minutes) compared to existing techniques.

Tear film interferometry with contact lenses on and off the eyes will also be investigated here, in an attempt to determine the feasibility of a tear film interferometry metric correlation to visual acuity.

1.1. Name and Descriptions of Investigational Products

ACUVUE OASYS® Brand Contact Lenses 1-Day with HydraLuxe™ Technology are made of senofilcon A material, an FDA approved product.

The intended use of the investigative product is for correcting myopia. During the study, the test article will be worn bilaterally in daily wear modality for the duration of the testing sessions and will be disposed of at the end of the session.

1.2. Intended Use of Investigational Products

Not applicable. Marketed product only.

1.3. Summary of Findings from Nonclinical Studies

Not applicable, marketed product only.

1.4. Summary of Known Risks and Benefits to Human Subjects

See test article package insert and Informed Consent form.

1.5. Relevant Literature References and Prior Clinical Data Relevant to Proposed Clinical Study

[REDACTED]

2. STUDY OBJECTIVES, ENDPOINTS AND HYPOTHESES

2.1. Objectives

- The primary objective of the study is to assess electronic LogMAR Visual Acuity under high luminance, low contrast (HLLC) and low luminance high contrast (LLHC) in subjects randomly fit with:
 - (i) AO1D, and
 - (ii) their best corrected spherocylindrical refraction (Trial Frame)
- The secondary objective is to compare Contrast sensitivity as measured through the qCSF (by AST Sentio Platform's technology) for the same 2 testing conditions listed above.
- Other Objectives: Obtain tear film interferometry measurements with and without contact lens wear. Investigate feasibility of tear film interferometry metric correlation to visual acuity.

2.2. Endpoints

Primary Endpoint

- Electronic LogMAR VA under HLLC and LLHC in the 2 testing treatments: AO1D, SCR.

Secondary Endpoint

- Quick Contrast Sensitivity Function under the 2 testing treatments: AO1D, SCR

Other Observation

- Tear Film Interferometry under the 2 testing treatments: AO1D, SCR.

2.3. Hypotheses

Primary Hypotheses

HLLC and LLHC electronic logMAR Visual Acuity of ACUVUE OASYS® Brand Contact Lenses 1-Day with HydraLuxe™ Technology (AO1D) will be non-inferior to that of best corrected sphero-cylindrical refraction with trial frame (SCR). A non-inferiority margin of 0.05 (2 and half letters) is assumed.

Secondary Hypotheses

The area under log of the contrast sensitivity function will not be statistically different for ACUVUE OASYS® Brand Contact Lenses 1-Day with HydraLuxe™ Technology compared to best corrected sphero-cylindrical refraction.

3. TARGETED STUDY POPULATION

3.1. General Characteristics

Forty-five (45) experienced contact lens wearers between 18 and 35 (inclusive) years **who are not current wearers of (AO1D)** will be recruited for this study.

3.2. Inclusion Criteria

Potential subjects must satisfy all of the following criteria to be enrolled in the study:

1. The subject must read, understand, and sign the STATEMENT OF INFORMED CONSENT and receive a fully executed copy of the form
2. Appear able and willing to adhere to the instructions set forth in this clinical protocol
3. Between 18 and 35 (inclusive) years of age at the time of screening
4. The subject must be habitual contact lens wearers (defined as minimum 6 hours per day, 5 days a week over the last month)
5. The subject must meet all of the following three criteria:
 - a. The eye's spherical equivalent distance refraction must be in the range of -1.00 to -9.00 D (inclusive).
 - b. The eye's refractive cylinder must be less than or equal to -0.75 DC.
 - c. Each eye must have best corrected visual acuity of 20/25 or better.
6. The subject must have normal eyes (i.e., no ocular medications or infections of any type)

3.3. Exclusion Criteria

Potential subjects who meet any of the following criteria will be excluded from participating in the study:

1. Currently pregnant or lactating
2. Any systemic disease (e.g., Sjögren's Syndrome), allergies, infectious disease (e.g., hepatitis, tuberculosis), contagious immunosuppressive diseases (e.g., HIV), autoimmune disease (e.g. rheumatoid arthritis), or other diseases, by self-report, which are known to interfere with contact lens wear and/or participation in the study
3. Use of systemic medications (e.g., chronic steroid use) that are known to interfere with contact lens wear or may impact the functioning of the tear film (e.g., Isotretinoin)
4. Any ocular allergies, infections or other ocular abnormalities that are known to interfere with contact lens wear and/or participation in the study. This may include, but not be limited to entropion, ectropion, extrusions, chalazia, recurrent styes, glaucoma, history of recurrent corneal erosions, aphakia, or corneal distortion
5. Any current use of ocular medication
6. Any previous, or planned (during the course of the study) ocular surgery (e.g., radial keratotomy, PRK, LASIK, etc.)
7. Any Grade 3 or greater slit lamp findings (e.g., edema, corneal neovascularization, corneal staining, tarsal abnormalities, conjunctival injection) on the Efron scale
8. Any previous history or signs of a contact lens-related corneal inflammatory event (e.g., past peripheral ulcer or round peripheral scar), or any other ocular abnormality that would contraindicate contact lens wear
9. Any known hypersensitivity or allergic reaction to contact lens care products.
10. Participation in any contact lens or lens care product clinical trial within 30 days prior to study enrollment
11. Employee of clinical site (e.g., Investigator, Coordinator, Technician)
12. Current wearers of AO1D brand contact lenses

3.4. Enrollment Strategy

Study subjects will be recruited from the clinical site's subject database and/or utilizing Independent Ethics Committee (IEC) or Institutional Review Board (IRB) approved materials.

4. STUDY DESIGN AND RATIONALE

4.1. Description of Study Design

This is a bilateral, non-dispensing, randomized-controlled, cross-over, single masked, single-site study. There will be a total of 3 visits and the study endpoints will be measured in all subjects at baseline with habitual lenses and under the two testing treatments (AO1D, SCR) sequentially in separate visits based on the randomization scheme.

NB: use of ocular lubricating drops are not allowed in this study.

4.2. Study Design Rationale

Subjects in this study will serve as their own control in a 2x2 crossover design. The study endpoints will be sequentially measured in each of the 2 post screening visits under the 2 different treatments based on the randomization scheme.

4.3. Enrollment Target and Study Duration

- 45 subjects will be enrolled with the aim of completing at least 42
- Single-site, internal clinical trial
- The study will include 3 visits. The first visit will be the screening and baseline visit. Subsequent visits will include testing under the 2 treatments: AO1D, SCR based on the randomization scheme. Enrollment period will be approximately 3-4 weeks.

5. TEST ARTICLE ALLOCATION AND MASKING

5.1. Test Article Allocation

The study lenses will be worn in a bilateral and random fashion using a 2x2 design. Permuted block randomization will be used to minimize the potential for bias in treatment allocation and to enhance validity of statistical comparisons across treatment groups. The randomization is such that on completion of the study visits each subject will have been tested under the 2 different treatments: AO1D, SCR. The subject will only be tested under a single treatment at each visit. The clinical site will follow the randomization scheme provided and will complete enrollment according to the randomization list and will not pre-select or assign subjects.

5.2. Masking

This study is single masked. Masking will be used to reduce potential bias. Subjects will be *unaware* of the identity of the investigational product. Contact lenses in the study will be over-labeled to reduce subject exposure to test product brand.

Under normal circumstances, the mask should not be broken until all subjects have completed the study and the database is finalized. Otherwise, the mask should be broken only if specific emergency treatment/course of action would be dictated by knowing the treatment status of the subject. In such cases, the Investigator may, in an emergency, contact the medical monitor. In the event the mask is broken, the Sponsor must be informed as soon as possible. The date, time, and reason for the unmasking must be documented in the subject record. The Investigator is also advised not to reveal the study treatment assignment to the clinical site or Sponsor personnel.

Subjects who have had their treatment assignment unmasked are expected to return for all remaining scheduled evaluations. Subjects who are discontinued during the enrolment period will be replaced. Once enrolment is completed, no further replacements will be allowed.

5.3. Procedures for Maintaining and Breaking Randomization Codes

The test articles mask shall not be broken unless information concerning the lens type is necessary for the urgent medical treatment of a subject. The Sponsor must be notified before the mask is broken.

6. STUDY INTERVENTION

6.1. Identity of Test Articles

The following contact lenses will be used in this study:

Table 1: Test Articles

	Test	Control
Test Article Form	Soft Contact Lens (best spherical equivalent)	Trial Frame of best corrected spher- cylindrical refraction
Lens Name	ACUVUE OASYS® 1-Day with HydraLuxe™	NA
Product Type	Marketed	NA
Manufacturer	Johnson & Johnson Vision Care, Inc.	NA
Packaging Form	Blister Pack	NA
Lens Production Protocol Number	N/A	NA
Nominal Distance Powers	-1.00 to -6.00D in 0.25D steps and - 6.50 to -9.00 in .50D steps	As refracted on the day of visit
Material / main component of formulation	senofilcon A	NA
Nominal Water content (%)	38%	NA
Nominal Base Curve/Diameter Range @ 22°C (mm)	8.5/14.3	NA

There will be 2 lenses (one pair per subject) of AO1D used in this study. Therefore, for the 45 subjects in this study and giving room for lens replacements, approximately 100 lenses will be used.

6.2. Ancillary Supplies/Products

There should be no solutions used in this study.

6.3. Administration of Test Articles

Test articles will be fitted to subject meeting all eligibility requirements. Damaged test articles will be replaced at the discretion of the Investigator and/or the Sponsor.

6.4. Packaging and Labeling

The test articles will be packaged in blisters as the primary packaging. The test article will be over-labeled to mask the subject to the identity of the lens. The test articles will be in plastic bags as the secondary packaging form. The sample study label is shown below:



6.5. Storage Conditions

Test articles will be maintained at ambient temperatures at the clinical site. Test articles must be kept under secure conditions.

6.6. Collection and Storage of Samples

No samples will be collected as part of the study procedures.

When possible, any lens or test article associated with an Adverse Events and/or a Product Quality Complaint must be retained and stored in a glass vial with moderate solution pending directions from the sponsor for potential return back to JJVC.

6.7. Accountability of Test Articles

JJVC will provide the Investigator with sufficient quantities of study articles and supplies to complete the investigation. The Investigator is asked to retain all lens shipment documentation for the test article accountability records.

Test article must be kept in a locked storage cabinet, accessible only to those assigned by the Investigator for dispensing. The Investigator may delegate this activity to authorized study site personnel listed on the Site Delegation Log. All test articles must be accounted. This includes:

1. What was dispensed for the subject for trial fitting, to wear out of the office, or issued for the subject to replace appropriately between visits
2. What was returned to the Investigator unused
3. The number and reason for unplanned replacements.

The Investigator will collect all unused test articles from the subjects at the end of the subject's participation. Subject returned unused test articles must be separated from the clinical study inventory of un-dispensed test articles, and must be labeled with the subject number and date of return. Following final reconciliation of test articles by the monitor, the Investigator or monitor will package and return all unused test articles to JJVC.

If there is a discrepancy between the shipment documents and the contents, contact the study monitor immediately.

Reference [REDACTED] Site Instructions for Test Article Receipt and Test Article Accountability for additional information.

7. STUDY EVALUATIONS

7.1. Time and Event Schedule

Table 2: Time and Events

Event	Visit 1 Day 0 (habitual lenses)	Visit 2 2(±1) Day after V1	Visit 3 2(±1) Day after V2	Final Evaluation
Estimated Visit Duration	2 hours	2 hours	2 hours	20 minutes
Statement of Informed Consent	X			
Demographics	X			
Medical History and Concomitant Medications	X			
Change of Medical History and Concomitant Medications		X	X	
Eligibility (Inclusion/Exclusion Criteria including baseline)	X			
Continuance of Eligibility*	X	X	X	
Entrance Visual Acuity (Electronic LogMAR)	X	X	X	
Exit Visual Acuity (Electronic LogMAR)	X	X	X	X
Subjective Sphero-cylindrical Refraction	X			X
Subjective Best-sphere Refraction	X			
Entrance Slit Lamp Biomicroscopy	X	X	X	
Exit Slit Lamp Biomicroscopy (if applicable)	X	X	X	X
Randomization For Testing treatment		X		
Lens Fitting/Settling (if applicable)	X	X		
Subjective Lens Fit Assessment (if applicable)	X	X	X	
Lens Power Modification (if applicable)	X	X	X	
Distance ETDRS Electronic LogMAR Visual Acuity	X	X	X	
Contrast Sensitivity Testing (qCSF)	X	X	X	
Tear Film Interferometry	X	X	X	
Final Exam Form				X

**Subjects should be informed not to use ocular lubricants during the study.*



7.2. Detailed Study Procedures

VISIT 1

Subjects must arrive at visit having worn their habitual contact lenses for at least 1 hour.

Visit 1: Screening and Baseline with Habitual lenses			
Step	Procedure	Details	
1.1	Statement of Informed Consent	Each subject must read, understand, and sign the Statement of Informed Consent before being enrolled into the study. The Principal Investigator or his/her designee conducting the informed consent discussion must also sign the consent form. Note: The subject must be provided a signed copy of this document.	
1.2	Demographics	Record the subject's date of birth, gender, race and ethnicity.	
1.3	Medical History and Concomitant Medications	Questions regarding the subjects' medical history and concomitant medications.	
1.4	Habitual Lenses	Questions regarding the subject's habitual lens type and parameters.	
1.5	Eligibility after Screening	All responses to Screening Inclusion Criteria questions must be answered "yes" and all responses to Exclusion Criteria must be answered "no" for the subject to be considered eligible.	
Visit 1: Baseline with Habitual lenses			
Step	Procedure	Details	
1.6	Entrance Visual Acuity	Record the distance Snellen visual acuity (OD, OS, and OU) to the nearest letter with their habitual lens correction in place. Subjects must read the smallest line until at least 50% of the letters are read incorrectly.	

1.7	Electronic LogMAR VA with habitual lenses	<p>Perform monocular distance Electronic LogMAR visual acuity test at a 4-meter distance OD and OS under the following conditions:</p> <ol style="list-style-type: none"> 1. bright illumination (e.g., >400 lux), high luminance with low contrast charts (HLLC); 2. dim illumination (e.g., <2.5 lux), low luminance, with high contrast charts (LLHC); 	<p>M&S Work aid</p> <p>██████████</p>
1.8	qCSF with habitual lenses	<p>Perform <i>monocular</i> distance contrast sensitivity test with qCSF.</p> <p>Contrast sensitivity will be tested within the spatial frequency range of 1.5 to 18 cpd for the qCSF method.</p> <p>Area Under the LogCSF (AULCSF) and CSF Acuity will also be collected.</p>	qCSF Work aid
1.9	TFI with habitual lenses	Collect images	TFI Work aid
1.10	Remove Lenses	Have subject remove their habitual lenses and store in a case with solution. Provide a case if subject does not have one.	
1.11	Subjective Sphero-cylindrical Refraction (SCR) LENSES OFF	<p>The investigator will complete subjective spherocylindrical refraction and then place in a trial frame and record the resultant distance Electronic LogMAR visual acuity (OD, OS and OU) to the nearest letter.</p> <p>High Luminance (>400 lux) High Contrast for eLogMAR</p>	██████████

1.12	Subjective Best Sphere Refraction LENSES OFF	<p>Perform subjective best sphere refraction with a phoropter (adopt the maximum plus to maximum visual acuity (MPMVA) approach and use the duo-chrome test for binocular balancing). to achieve the best corrected distance visual acuity (OD, OS, OU) to the nearest letter.</p> <p>Place refraction in a Trial Frame and record the resultant distance electronic LogMar visual acuity.</p> <p>High Luminance (>400 lux) High Contrast for eLogMAR</p> <p>Note: The endpoint criterion for the duo-chrome test is the lens power at which the red and green sides of the chart appear to be equally distinct. However, if the subject's response changes from "red" to "green" with only a 0.25 D change in power and no report that the two sides appear to be equally sharp, the refraction endpoint should be the lens power that leave the red chart sharper.</p>	
1.13	Slit Lamp Findings	<p>Efron Slit Lamp Classification Scale will be used to grade the findings and determine eligibility. If no slit lamp finding is noted on the EDC form it is considered as a zero "0" grade for all observations listed. If any of these slit lamp findings are Grade 3 or higher, the subject may not continue at this time, but may return up to one additional time to determine eligibility. If discontinued a final examination must be completed.</p> <p>Should the clearance of the fluorescein need to be expedited, preservative-free rewetting drops may be instilled.</p>	Workaid: <i>Efron Grading Scale Guideline</i>
1.14	Eligibility after Baseline	All responses to Inclusion Criteria questions must be answered "yes" and all responses to Exclusion Criteria questions must be answered "no" for the subject to be considered eligible.	
1.15	Exit Distance Visual Acuity	Record the distance Snellen visual acuity with the subject's habitual lenses (OD, OS, and OU) to the nearest letter. Subjects must read the smallest line until at least 50% of the letters are read incorrectly.	
1.16		Schedule subject to return in 1-3 days	

VISIT 2

Subjects must not wear contact lenses on the day of this visit

Visit #2 – Treatment #1 (1-3 days): Electronic LogMAR Visual Acuity, qCSF, and TFI Testing			
Step	Descriptor	Details	Appendix
2.1	Adverse Events and Concomitant Medications Review	Review the subject's concomitant medications and record any changes from the previous study visit. Record any adverse events or medical history changes from the previous study visit.	Adverse Events and Concomitant Medications Review
2.2	Visual Acuity	Record the distance Snellen visual acuity with the subject's spectacles, if applicable (OD, OS, and OU) to the nearest letter. Subjects must read the smallest line until at least 50% of the letters are read incorrectly.	
2.3	Slit Lamp Findings **White Light**	Efron Slit Lamp Classification Scale will be used to grade the findings. Adverse events shall be documented and followed for significant slit lamp findings. If the clearance of the fluorescein needs to be expedited, preservative-free rewetting drops may be instilled.	Workaid: Efron Grading Scale Guideline
2.4	Continuance	Determine whether the subject is eligible to continue in the study based on the examination findings.	

Visit 2: Treatment #1			
Step	Procedure	Details	
2.5	Lens/Test Treatment Information	Assign the treatment lens based on the randomization scheme. Use the Visit 1 refraction assessment: <u>Contact lens</u> : Select the lens power based on subjective best sphere refraction. or <u>Trial Frames</u> : Use the best corrected sphero-cylindrical refraction NB: The trial frame best corrected refraction treatment's vertex distance (mm) and PD(mm) should be adjusted by the investigator for powers greater than -4.00.	

2.6	Lens insertion (if applicable)	The investigator or the subject inserts the study lenses (if applicable). Record the time of lens insertion. Check for lens damage under the slit lamp before proceeding with lens settling and replace damaged lenses, if applicable. Use the solution from the blister pack to rinse the lenses if needed. New pair of lenses will need to be dispensed if a blister pack solution is unavailable.	
2.7	Lens settling (if applicable)	Allow the study lenses to settle for a minimum of 15 minutes.	
2.8	Subjective Lens Fit Assessment (if applicable)	<p>The lens fit will be judged to be either acceptable or unacceptable by the investigator based on centration, movement and other fitting characteristics. An unacceptable fit is deemed by one of the following criteria:</p> <ul style="list-style-type: none"> • limbal exposure at primary gaze or with extreme eye movement; • edge lift; • excessive movement in primary <u>and</u> up gaze; or • insufficient movement in <u>all three</u> of the following conditions: primary gaze, up gaze, and Josephson push up. <p>Note: if lens fit is unacceptable subject will be discontinued from the study.</p>	<div></div> <div></div>
2.9	Over refraction	Adjust the contact lens or trial frame lens power if the subject's best sphere over-refraction is not plano. Will allow +/-0.25 in the over refraction for -6.00 to -9.00.	
2.10	Lens Power Modification (if applicable)	<p>For each study lens power modification, repeat steps 2.5 - 2.9</p> <p>Up to three power modifications are allowed.</p>	
2.11	Distance electronic LogMAR Visual Acuity	<p>Perform monocular distance Electronic LogMAR visual acuity test at a 4-meter distance OD and OS under the following conditions:</p> <ol style="list-style-type: none"> 1. bright illumination (e.g., >400 lux), high luminance with low contrast charts (HLLC) 2. dim illumination (e.g., <2.5 lux), low luminance (using neutral density filter), with high contrast charts (LLHC); 	<p>M&S Work Aid</p> <div></div>

2.12	qCSF	Perform monocular distance contrast sensitivity test with qCSF. Contrast sensitivity will be tested within the spatial frequency range of 1.5 to 18 cpd for the qCSF method. Area Under the Log CSF (AULCSF) and CSF Acuity will also be collected.	qCSF Work aid
2.13	TFI	Collect images	TFI Work aid
2.14	Lens Removal	Discard lenses after use	
2.15	Slit Lamp (if applicable)	Efron Slit Lamp Classification Scale will be used to grade the findings. Adverse events shall be documented and followed for significant slit lamp findings. If the clearance of the fluorescein needs to be expedited, preservative-free rewetting drops may be instilled.	Workaid: <i>Efron Grading Scale Guideline</i>
2.16	Exit VA	Record the exit distance Snellen visual acuity OD, OS, OU with habitual condition.	
2.17		Schedule subject to return in 1-3 days	

VISIT 3

Subjects must not wear contact lenses on the day of this visit

Visit #3 – Treatment #2 (1-3 days): SCR Electronic LogMAR Visual Acuity, QCSF			
Step	Descriptor	Details	Appendix
3.1	Adverse Events and Concomitant Medications Review	Review the subject's concomitant medications and record any changes from the previous study visit. Record any adverse events or medical history changes from the previous study visit.	Adverse Events and Concomitant Medications Review
3.2	Visual Acuity	Record the distance Snellen visual acuity with the subject's spectacles, if applicable (OD, OS, and OU) to the nearest letter. Subjects must read the smallest line until at least 50% of the letters are read incorrectly.	

3.3	Slit Lamp Findings ***White Light***	Efron Slit Lamp Classification Scale will be used to grade the findings. Adverse events shall be documented and followed for significant slit lamp findings. If the clearance of the fluorescein needs to be expedited, preservative-free rewetting drops may be instilled.	Workaid: <i>Efron Grading Scale Guideline</i>
3.4	Continuance	Determine whether the subject is eligible to continue in the study based on the examination findings.	

Visit 3: Treatment #2			
Step	Procedure	Details	
3.5	Lens/Test Treatment Information	Assign the treatment lens based on the randomization scheme. Use the Visit 1 refraction assessment: <u>Contact lens</u> : Select the lens power based on subjective best sphere refraction. or <u>Trial Frames</u> : Use the best corrected sphero-cylindrical refraction NB: The trial frame best corrected refraction treatment's vertex distance (mm) and PD(mm) should be adjusted by the investigator for powers greater than -4.00.	
3.6	Lens insertion (if applicable)	The investigator or the subject inserts the study lenses (if applicable). Record the time of lens insertion. Check for lens damage under the slit lamp before proceeding with lens settling and replace damaged lenses, if applicable. Use the solution from the blister pack to rinse the lenses if needed. New pair of lenses will need to be dispensed if a blister pack solution is unavailable.	
3.7	Lens settling (if applicable)	Allow the study lenses to settle for a minimum of 15 minutes.	

3.8	Subjective Lens Fit Assessment (if applicable)	<p>The lens fit will be judged to be either acceptable or unacceptable by the investigator based on centration, movement and other fitting characteristics.</p> <p>An unacceptable fit is deemed by one of the following criteria:</p> <ul style="list-style-type: none"> limbal exposure at primary gaze or with extreme eye movement; edge lift; excessive movement in primary <u>and</u> up gaze; or insufficient movement in all three of the following conditions: primary gaze, up gaze, and Josephson push up. <p>Note: if lens fit is unacceptable subject will be discontinued from the study.</p>	
3.9	Over refraction	Adjust the contact lens or trial frame lens power if the subject's best sphere over-refraction is not plano. Will allow -0.25 in the over refraction for -6.00 to -9.00.	
3.10	Lens Power Modification (if applicable)	For each study lens power modification, repeat steps (3.5 – 3.9). Up to three power modifications are allowed.	
3.11	Distance electronic LogMAR Visual Acuity	<p>Perform monocular distance Electronic LogMAR visual acuity test at a 4-meter distance OD and OS under the following conditions:</p> <ol style="list-style-type: none"> bright illumination (e.g., >400 lux), high luminance with low contrast charts (HLLC) dim illumination (e.g., <2.5 lux), low luminance (using neutral density filter), with high contrast charts (LLHC); 	M&S Work Aid
3.12	qCSF	<p>Perform monocular distance contrast sensitivity test with qCSF.</p> <p>Contrast sensitivity will be tested within the spatial frequency range of 1.5 to 18 cpd for the qCSF method. Area Under the Log CSF (AULCSF) and CSF Acuity will also be collected.</p>	qCSF Work aid
3.13	TFI	Collect images	TFI Work aid
3.14	Lens Removal	Discard lenses after use	

FINAL EVALUATION

The final evaluation will ordinarily take place immediately following the last scheduled follow-up visit per the study protocol. It may also take place at any point the subject discontinues the study or is terminated from the study.

Final Evaluation			
Step	Procedure	Details	
F.1	Final Exam Form	Indicate if the subject completed the study successfully. If subject discontinued from the study indicate the reason.	
F.2	Subjective spherocylindrical Refraction	Perform bare-eye subjective spherocylindrical refraction with a phoropter and record the best corrected <u>distance Snellen</u> visual acuity to the nearest letter (OD, OS, OU).	
F.3	Exit Slit Lamp Biomicroscopy	Efron Slit Lamp Classification Scale will be used to grade the findings and determine eligibility. If no slit lamp finding is noted on the EDC form it is considered as a zero "0" grade for all observations listed. After the slit lamp examination, at the discretion of the Investigator, rinse the subject's eyes thoroughly with preservative-free saline.	Workaid: <i>Efron Grading Scale Guideline</i>

7.3. Unscheduled Visits

If, during the investigation, a subject requires an unscheduled visit to the clinical site, the following information will be collected at a minimum:

- Chief complaint prompting the visit. If the reason is an adverse event, the applicable eCRF for the adverse event must be completed and subject record completed as appropriate
- Date and time of the visit and all procedures completed at the unscheduled visit
- Review of adverse event and concomitant medications
- Documentation of any test article dispensed or collected from the subject, if applicable
- Slit lamp findings (using the Slit Lamp Classification Scale)

If the Investigator withdraws a subject from the study, the final study visit case report forms must be completed indicating the reason(s) why the subject was withdrawn. The subject record must be completed documenting the date and primary reason for withdrawal and the study CRA notified.

Any ocular and non-ocular Adverse Events that are ongoing at the time of the study visit will be followed by the Investigator, within licensure, until they have resolved, returned to pre-

treatment status, stabilized, or been satisfactorily explained. If further treatment i.e., beyond licensure is required, the subject will be referred to the appropriate health care provider.

The following information will be collected during an unscheduled visit.

Step	Procedure	Details	
U.1	Chief Complaints	Record the subject's chief complaints for reasons for the unscheduled visit	
U.2	Change of Medical History and Concomitant Medications	Questions regarding the change of subjects' medical history and concomitant medications.	
U.3	Entrance VA	Record the entrance distance visual acuity (OD, OS and OU) to the nearest letter.	
U.4	Subjective Sphero-cylindrical Refraction	Perform bare-eye subjective sphero-cylindrical refraction with a phoropter (adopt the maximum plus to maximum visual acuity (MPMVA) approach and use the duo-chrome test for binocular balancing) and record the best corrected <u>distance</u> visual acuity to the nearest letter (OD, OS, OU).	
U.5	Slit Lamp Biomicroscopy	Efron Scale will be used to grade the findings. If no slit lamp finding is noted on the EDC form it is considered as a zero "0" grade for all observations listed. After the slit lamp examination, at the discretion of the Investigator, rinse the subject's eyes thoroughly with preservative-free saline.	Workaid: <i>Efron Grading Scale Guideline</i>
U.6	Exit Visual Acuity	Record the subject's exit distance visual acuity (OD, OS and OU) to the nearest letter	

7.4. Laboratory Procedures

No microbiology or laboratory testing required in this study.
See appended work-aid for Tear Film Interferometry image analysis.

8. SUBJECTS COMPLETION/WITHDRAWAL

8.1. Completion Criteria

Subjects are considered to have completed the study if they:

- provided informed consent;
- they are eligible;
 - have not withdrawn/discontinued from the study for any reason described in Section 8.2, and
 - completed all visits through the final visit. Subjects who did not complete visits 2 and 3 will not be considered to have completed the study.

8.2. Withdrawal/Discontinuation from the Study

A subject will be withdrawn from the study for any of the following reasons:

- Subject death during the study period
- Subject withdrawal of consent
- Subject not compliant to protocol
- Subject lost to follow-up
- Subject no longer meets eligibility criteria (e.g., the subject becomes pregnant)
- Subject develops significant or serious adverse events causing discontinuation of study lens wear
- Subjects who have experienced a Corneal infiltrative Event (CIE) deemed by the investigator to be a serious adverse event.
- Investigator's clinical judgment regarding the subject safety
- Subject missed two consecutive study visits

For discontinued subjects, the Investigator will:

- Complete the current visit (scheduled or unscheduled)
- Complete the Final Evaluation, indicating the reason that the subject was discontinued from the study
- Record the spherocylindrical refraction with best corrected distance visual acuity
- Collect used test article(s) (worn or brought to the visit) from the subject and discard them, unless otherwise stated in Section 7.2
- Collect all unused test article(s) from the subject

An additional subject will be enrolled if a subject discontinues from the study prematurely.

In cases where a subject is lost to follow-up, every possible effort must be made to contact the subject and determine the reason for discontinuation/withdrawal. The measures taken to follow up must be documented including two written attempts and a certified letter (or equivalent) as the final attempt.

9. PRE-STUDY AND CONCOMITANT INTERVENTION/MEDICATION

Concomitant medications will be documented during screening and updated during the study. Disallowed medications for this study include: *As indicated in exclusion criteria.*

Concomitant therapies that are disallowed include: *Lubricating eyedrops and drops that may affect the tear film (as determined by the investigator) are not allowed in this study.*

10. DEVIATIONS FROM THE PROTOCOL

Investigator will notify study sponsor upon identification of a protocol deviation. Major protocol deviations must be reported to the sponsor within 24 hours after discovery of the protocol deviation. The Investigator will report deviations per IRB/IEC requirements. All deviations will be tracked and corrective actions implemented as appropriate.

If it becomes necessary for the Investigator to implement a deviation in order to eliminate an immediate hazard to the trial subject, the Investigator may implement the deviation immediately without notification to the sponsor. Within 24 hours after the implemented deviation, the Investigator must notify and provide the rationale to the Sponsor and, as required, the IEC/IRB.

11. STUDY TERMINATION

The occurrence of one or more Unanticipated Serious Adverse Device Effect (USADE), or any SAE where the relationship to study agent cannot be ruled out, may result in stopping further dispensing of test article. In the event of a USADE or SAE, the Sponsor may unmask the treatment regimen for the subject(s) and will discuss this with the Investigator before any further subjects are enrolled.

The Sponsor will determine when a study will be stopped. The Principal Investigator always has the discretion to initiate stopping the study based on patient safety or if information indicates the study's results are compromised.

JJVC reserves the right to terminate the study at any time for any reason. Additionally, the IEC/IRB reserves the right to terminate the study if an unreasonable risk is determined. The study can be terminated by the Principal Investigator at the individual clinical site due to specific clinical observations, if in their opinion, after a discussion with JJVC, it is determined that it would be unwise to continue at the clinical site.

JJVC (and the IEC/IRB and DMC, if applicable) will evaluate all adverse events. If it is determined that an adverse event presents an unreasonable risk, the investigation, or that part of the investigation presenting the risk, will be terminated, as soon as possible.

Should the study be terminated (either prematurely or as scheduled), the Investigator will notify the IEC/IRB and Regulatory Authority as required by local regulatory requirements.

12. PROCEDURE FOR HANDLING PRODUCT QUALITY COMPLAINTS

A Product Quality Complaint (PQC) refers to any written, electronic, or oral communication that alleges deficiencies related to the identity, quality, durability, reliability, safety, effectiveness or performance of test articles after they have been released for clinical trial use.

Potential complaints may come from a variety of sources including but not limited to subjects, clinical research associates (CRA), clinical operations managers (COM), medical monitors, and site personnel, etc. The following are not considered product quality complaints:

- Subject satisfaction inquiries reported via “Subjective Questionnaires” and “Patient Reported Outcomes (PRO)”.
- Clinical test articles that are stored improperly or damaged after receipt at the investigational site.
- Lens replacements that occur due to drops/fall-outs.
- Damage deemed by clinicians or clinical staff to be caused by handling by the user, and not indicative of a quality deficiency (i.e. tears, rips, etc.), only in situations where there is no deficiency alleged by the subject.

Within 24 hours of site personnel becoming aware that a PQC has occurred, the PQC must be recorded in the EDC system, which will trigger an automatic email notification to the appropriate COM/CRA and Clinical QA representative. In cases where the EDC system in use is not configured to send automatic notifications or when an EDC system is not used, the COM/CRA is responsible for notifying Clinical QA upon discovery that a PQC has occurred.

Upon receipt of the EDC notification, the COM/CRA will contact the study site to collect additional information which will include:

- Date the complaint was received/recorded in the EDC System (Date of Sponsor Awareness)
- Who received the complaint
- Study number
- Clinical site information (contact name, site ID, telephone number)
- Lot number(s)
- Unique Subject Identifier(s)
- Indication of who first observed complaint (site personnel or subject)
- OD/OS indication, along with whether or not the lens was inserted
- Any related AE number if applicable
- Detailed complaint description (scheduled/unscheduled visit, wear time, symptoms, resolution of symptoms, etc.)
- Eye Care Provider objective (slit lamp) findings if applicable
- Confirmation of product availability for return (and tracking information, if available), or rationale if product is not available for return [REDACTED]

Once a complaint is received, it will be assessed by the COM, CRA, or trained site personnel to determine if it is an Adverse Event/Serious Adverse Event (AE/SAE). If the complaint results in an AE/SAE, the COM/CRA, or trained site personnel will follow Section 13 of this protocol. If the AE/SAE was potentially the result of a product quality related deficiency, these procedures also applies and will be executed in parallel.

In some cases, a PQC form may be generated in EDC by the site in error. In this event, the PQC forms will be marked “Intentionally Left Blank” or “ILB”. Justification for ILB must be documented.

13. ADVERSE EVENTS

13.1. Definitions and Classifications

Adverse Event (AE) – An AE is any untoward (unwanted) medical occurrence in a patient or clinical investigation subject administered a test article, study treatment or study procedure whether or not caused by the test article, study treatment or procedure. An AE can therefore be any unfavorable or unintended sign (including an abnormal finding), symptom, or disease temporally associated with the use of the test article, study treatment, or study procedure whether or not related to the test article, study treatment, or study procedure.

An AE includes any condition (including a pre-existing condition) that:

1. Was not present prior to the study, but appeared or reappeared following initiation of the study
2. Was present prior to the study, but worsened during the study. This would include any condition resulting from concomitant illnesses, reactions to concomitant medications, or progression of disease states
3. Pregnancy must be documented as an adverse event and must be reported to the clinical monitor and to the Sponsor immediately upon learning of the event

Serious Adverse Event (SAE) – An SAE is any untoward medical occurrence that:

- Results in death
- Is life threatening
- Requires in-patient hospitalization or prolongation of existing hospitalization
- Results in persistent or significant disability/incapacity (e.g., a sight threatening event, a significant persistent or permanent change, impairment, damage, or disruption to the subject’s body)
- Is a congenital anomaly/birth defect, or
- Requires intervention to prevent permanent damage (the use of the test article resulting in a condition which requires medical or surgical intervention to preclude permanent impairment of the body structure or a body function). Important medical events that may not result in death, be life-threatening, or require hospitalization may be considered an SAE when, based upon appropriate medical judgment, they may jeopardize the patient or subject and may require medical or surgical intervention to prevent one of the outcomes listed in the above definition.

Diagnoses and conditions that are considered Ocular Serious Adverse Events include, but not limited to:

- Microbial Keratitis (MK)
- Iritis (including cells in the anterior chamber)
- Permanent decrease in best spectacle corrected visual acuity equivalent to 2 acuity lines or greater

- Central Corneal Opacity
- Central Corneal Neovascularization
- Uveitis
- Endophthalmitis
- Hypopyon
- Hyphemia
- Penetration of Bowman's Membrane
- Persistent Epithelial Defect
- Limbal cell Damage leading to Conjunctivalization

Significant Adverse Events – Those events that are usually symptomatic and warrant discontinuation (temporary or permanent) of the test article (excluding Serious Adverse Events).

Diagnoses and conditions that are considered Ocular Significant Adverse Events include, but not limited to the following:

- Contact Lens Induced Peripheral Ulcer (CLPU)
- Significant Infiltrative Events (SIE)
- Superior Epithelial Arcuate Lesions (SEALs)
- Any Temporary Loss of >2 Lines of BSCVA
- Other Grade 3 or higher corneal findings, such as abrasions or edema
- Non-contact lens related corneal events - e.g. Epidemic Keratoconjunctivitis (EKC)
- Asymptomatic Corneal Scar
- Any corneal event which necessitates temporary lens discontinuation >2 weeks

Non-Significant Adverse Events – Those conditions that are usually asymptomatic and usually do not warrant discontinuation (temporary or permanent) of the test article. However, the Investigator may choose to treat as a precautionary measure.

Diagnoses and conditions that are considered Ocular Non-Significant Adverse Events include, but not limited to the following:

- Non-significant Infiltrative Event (NSIE)
- Contact Lens Papillary Conjunctivitis (CLPC)
- Superficial Punctate Keratitis (SPK)
- Conjunctivitis: Bacterial, Viral, Allergic
- Blepharitis
- Meibomianitis
- Contact Dermatitis
- Localized Allergic Reactions
- Any corneal event not explicitly defined as serious or significant adverse event, which necessitates temporary lens discontinuation <2 weeks

Adverse Device Effect (ADE) – A sub-set of AEs, and include only those adverse events that are caused by or related to the investigational device.

Unanticipated Adverse Device Effect (UADE) – Any serious adverse effect on health or safety or any life-threatening problem or death caused by, or associated with, the test article, if that effect, problem, or death was not previously identified in nature, severity, or degree of incidence in the investigational plan, Investigator's Brochure or protocol, or any other unanticipated serious problem associated with the test article that relates to the rights, safety and welfare of subjects.

13.2. Assessing Adverse Events

In conjunction with the medical monitor, the Investigator will evaluate adverse events to ensure the events are categorized correctly. Elements of categorization will include:

- Seriousness/Classifications (see definition in Section 13.1)
- Causality or Relatedness – i.e. the relationship between the test article, study treatment or study procedures and the adverse event (not related; doubtful; possible; probable; very likely - see definition in Section 13.2.1)
- Adverse Event Severity – Adverse event severity is used to assess the degree of intensity of the adverse event (mild; moderate; severe for all events - see definition in Section 13.2.2).
- Outcome – Not Recovered or Not Resolved; Recovering or Resolving; Recovered or Resolved with Sequelae; Recovered or Resolved; Death Related to Adverse Event; Unknown
- Actions Taken – None; temporarily discontinued; permanently discontinued; other action taken

13.2.1 Causality Assessment

Causality Assessment – A determination of the relationship between an adverse event and the test article, study treatment, or study procedure. The test article, study treatment or study procedure relationship for each adverse event shall be determined by the Investigator using these explanations:

- Not Related- An adverse event that is not related to the use of the test article, study treatment or study procedures.
- Unlikely Related – An adverse event for which an alternative explanation is more likely, e.g. concomitant treatment, concomitant disease(s), or the relationship of time suggests that a causal relationship is not likely.
- Possibly Related – An adverse event that might be due to the use of the test article, or to the study treatment or study procedures. An alternative explanation, e.g. concomitant treatment, concomitant disease(s), is inconclusive. The relationship in time is reasonable. Therefore, the causal relationship cannot be excluded.
- Related – An adverse event that is listed as a possible adverse effect (device) or adverse reaction (drug) and cannot be reasonably explained by an alternative explanation, e.g. concomitant treatment of concomitant disease(s). The relationship in time is very suggestive, e.g. it is confirmed by de-challenge and re-challenge.

13.2.2 Severity Assessment

Severity Assessment – A qualitative assessment of the degree of intensity of an adverse event as determined by the Investigator or reported to him/her by the subject. The assessment of severity is made irrespective of test article, study treatment or study procedure relationship or seriousness of the event and should be evaluated according to the following scale:

- Mild – Event is noticeable to the subject, but is easily tolerated and does not interfere with the subject's daily activities
- Moderate – Event is bothersome, possibly requiring additional therapy, and may interfere with the subject's daily activities
- Severe – Event is intolerable, necessitates additional therapy or alteration of therapy and interferes with the subject's daily activities

13.3. Documentation and Follow-Up of Adverse Events

The recording and documenting of adverse events (ocular and non-ocular) begins when the subjects are exposed to the test article, study treatment or study procedure. Adverse events reported before the use of test article, start of study treatment, or study procedures will be recorded as medical history. However, if the condition deteriorates at any time during the study it will be recorded and reported as an AE. Untoward medical events reported after the subject's exit from the study will be recorded as adverse events at the discretion of the Investigator.

Upon finding an adverse event, the Principal Investigator will document the condition in the subject record and in the eCRFs. He/she will complete the Adverse Event /eCRF.

Complete descriptions of all adverse events must be available in the subject record. All Adverse Events including local and systemic reactions not meeting the criteria for "serious adverse events" shall be captured on the appropriate case report form or electronic data system. All adverse events occurring while the subject is enrolled in the study must be documented appropriately regardless of relationship.

It is the Investigator's responsibility to maintain documentation of each reported adverse event. All adverse events will be followed in accordance with applicable licensing requirements. Such documentation will include the following:

- Adverse event (diagnosis not symptom)
- Drawings or photographs (where appropriate) that detail the finding (e.g., size, location, and depth, etc.)
- Date the clinical site was notified
- Date and time of onset
- Date and time of resolution
- Adverse event classification, severity, and relationship to test articles, as applicable
- Treatment regimen instituted, including concomitant medications prescribed, in accordance with applicable licensing requirements
- Any referral to another health care provider if needed
- Outcome, ocular damage (if any)
- Likely etiology

- Best corrected visual acuity at the discovery of the event and upon conclusion of the event

In addition, if an infiltrate(s) is present, he/she will complete the Corneal Infiltrate Assessment /eCRF. Where necessary, a culture of the corneal lesion will be collected to determine if the infection is microbial in nature. If cultures are collected, the date of culture collection and laboratory utilized will be recorded.

Changes in the severity of an AE shall be documented to allow an assessment of the duration of the event at each level of intensity to be performed. Adverse events characterized as intermittent require documentation of the onset and duration of each episode. Changes in the assessment of relationship to the Test Article shall also be clearly documented.

Subjects who present with an adverse event shall be followed by the Investigator, within licensure, until all signs and symptoms have returned to pre-treatment status, stabilized, or been satisfactorily resolved. If further treatment beyond licensure is required, the patient will be referred to the appropriate health care provider. The Investigator will use his/her clinical judgment as to whether or not a subject reporting with an adverse event will continue in the study. If a subject is discontinued from the study, it will be the responsibility of the Investigator to record the reason for discontinuation. The Investigator will also document the adverse event appropriately and complete the Adverse Event /eCRF. Any subjects with ongoing adverse events related to the test article, study treatment or study procedures, as of the final study visit date should be followed to resolution of the adverse event or until referral to an appropriate health care provider, as recommended by the Investigator.

13.4. Reporting Adverse Events

The Investigator will notify the Sponsor of an adverse event by e-mail, facsimile, or telephone as soon as possible and no later than 24 hours from discovery for any serious /significant adverse events, and 2 days from discovery for any non-significant adverse event. In addition, a written report will be submitted by the Principal Investigator to the IEC/IRB according to their requirements (Section 13.4.2). The report will comment whether or not the adverse event was considered to be related to the test article, study treatment or study procedures.

13.4.1 Reporting Adverse Events to Sponsor

Serious/Significant Adverse Events

The Investigator will inform the sponsor of all serious/significant adverse events occurring during the study period as soon as possible by e-mail, fax, or telephone, but no later than 24 hours following discovery of the event. The Investigator is obligated to pursue and obtain information requested by the Sponsor in addition to that information reported on the eCRF. All subjects experiencing a serious/significant adverse event must be followed up and all outcomes must be reported.

When medically necessary, the Investigator may break the randomization code to determine the identity of the treatment that the subject received. The Sponsor and study monitor should be notified prior to unmasking the test articles.

In the event of a serious/significant adverse event, the Investigator must:

- Notify the Sponsor immediately
- Obtain and maintain in the subject's records all pertinent medical information and medical judgment for colleagues who assisted in the treatment and follow-up of the subject
- Provide the Sponsor with a complete case history which includes a statement as to whether the event was or was not related to the use of the test article
- Notify the IEC/IRB as required by the IEC/IRB reporting procedure according to national regulations

Unanticipated (Serious) Adverse Device Effect (UADE)

In the event of an Unanticipated (Serious) Adverse Device Effect (UADE), the Investigator will submit a report of the UADE to the Sponsor and IEC/IRB as soon as possible, but no later than 24 hours after the Investigator first learns of the effect. This report is in addition to the immediate notification mentioned above.

The Sponsor must conduct an evaluation of the UADE and must report the results of the evaluation to FDA, the IEC/IRB and participating Investigators within 10 working days after the Sponsor first receives notification of the effect.

Non-Serious Adverse Events

All non-serious adverse events, including non-serious adverse device effects, will be reported to the sponsor by the Investigator no later than 2 days from discovery.

13.4.2 Reporting Adverse Events to the Responsible IEC/IRB and Health Authorities

Adverse events that meet the IEC/IRB requirements for reporting must be reported within the IEC/IRB's written guidelines. Each clinical site will refer to and follow any guidelines set forth by their Approving IEC/IRB. Each clinical site will refer to and follow any guidelines set forth by their local governing Health Authorities.

The Sponsor will report applicable Adverse Events to the local health authorities according the written guidelines, including reporting timelines.

13.5. Event of Special Interest

Not applicable.

13.6. Reporting of Pregnancy

Subjects reporting pregnancy (by self-report) during the course of the study will be discontinued after the event is recorded as an Adverse Event. Once discontinued, pregnant participants and their fetuses will not be monitored for study related purposes. At the Investigator's discretion, the study participant may be followed by the Investigator through delivery. However, this data will not be collected as part of the clinical study database. Pregnant participants are not discontinued from contact lens or solution related studies for safety concerns, but due to general concerns relating to pregnancy and contact lens use. Specifically, pregnant women are discontinued due to fluctuations in refractive error and/or

visual acuity that occur secondary to systemic hormonal changes, and not due to unforeseen health risks to the mother or fetus.

14. STATISTICAL METHODS

14.1. General Considerations

Statistical Analysis will be undertaken by the sponsor. A general description of the statistical methods to be implemented in this clinical trial is outlined below.

All data summaries and statistical analyses will be performed using the SAS software Version 9.4 (*SAS Institute, Cary, NC*). Throughout the analysis of data, the results for each subject/eye will be used when available for summarization and statistical analysis. Unscheduled visits will be summarized separately and will be excluded from the statistical analysis.

Summary tables (descriptive statistics and/or frequency tables) will be provided for all baseline variables, efficacy variables and safety variables as appropriate. Continuous variables will be summarized with descriptive statistics (n, mean, standard deviation (SD), median, minimum and maximum). Frequency count and percentage of subjects or eyes within each category will be provided for categorical data.

14.2. Sample Size Justification

There will be one testing site: VRC [REDACTED]. A total of approximately 45 eligible subjects will be enrolled into the study at this site. At least 42 subjects will complete this study. The sample size to complete the study is based on the primary hypothesis selected based on the results of a prior Repeatability & Reproducibility (R&R) study regarding ETDRS visual acuity test. The R & R study is a post-hoc analysis of two studies CR-1619 and CR-1622.

Using the POWER procedure in SAS 9.4, below is the summary of sample size required based on the different assumptions of the true difference in electronic LogMAR visual acuity. The sample size was calculated for the non-inferiority tests with at least 90% of statistical power and 2-sided type I error of 0.05. The intraclass correlation was assumed to be 0.5.

Assuming the true difference in electronic LogMAR visual acuity is between 0 (no difference) to 0.02 (one letter), it requires 24 to 63 independent eyes to demonstrate non-inferiority.

- Electronic LogMAR visual acuity

Difference (Test-Control)	Estimated Standard Deviation	# of eyes needed	Power
0.00	0.08	24	0.9
0.02	0.08	63	0.9

14.3. Analysis Populations

The analysis population includes all per-protocol population subjects (see below).

Safety Population:

All subjects who were administered any test article excluding subjects who drop out prior to administering any test article. At least one observation should be recorded.

Per-Protocol Population:

All subjects who have successfully completed all visits and did not substantially deviate from the protocol as determined by the trial cohort review committee prior to database hard lock (Per-Protocol Population). Justification of excluding subjects with protocol deviations in the per-protocol population set will be documented in a memo to file.

Intent-to-Treat (ITT) Population:

All randomized subjects regardless of actual treatment and subsequent withdrawal from study or deviation from protocol. At least one observation should be recorded.

14.4. Level of Statistical Significance

All planned analysis for this study will be conducted with an overall type I error rate of 5%. Adjustment for multiple comparisons will be conducted using a simulation based approach.

14.5. Primary Analysis

Electronic LogMAR Visual Acuity will be analyzed on the analysis population using a linear mixed model. The model will include the experimental design factors: visit, test condition (AO1D/SCR), sequence of the test conditions as fixed effects. Subject will be included as a random effect. Age and gender will be included as fixed covariates when appropriate. The covariance between residual errors from the same subject across test conditions for the same test method will be selected based on the finite-sample corrected Akaike's Information Criterion³. Covariance structures considered may include: Homogenous compound symmetry (CS) and Unstructured covariance structure (UN). The structure that returns the lowest Akaike Information Criteria Corrected (AICC) will be selected as the structure that best fit the data.

Comparisons among the test conditions will be carried out using 95% confidence intervals constructed of pairwise least-square means (LSM) differences from the linear mixed model. Non-inferiority will be established if the upper confidence limit is less than 0.05. If non-inferiority is attained, superiority will be tested. Superiority will be concluded if upper confidence limit is less than 0.

In all models, the Kenward and Roger method (Kenward and Roger, 1997)⁴ will be used for the calculation of the denominator of degrees of freedom.

14.6. Secondary Analysis – Quick Contrast Sensitivity

The area under the contrast sensitivity function curve will be analyzed on the analysis population using a linear mixed model. The model will include the experimental design factors: test method (qCSF), visit, test method by period interaction, test condition (AO1D/SCR), sequence of the test conditions, and test method by test condition interaction as fixed effects. Subject will be included as a random effect. Age and gender will be included as fixed covariates when appropriate. The covariance between residual errors from the same subject across test conditions for the same test method will be selected based on the finite-sample corrected Akaike's Information Criterion (Keselman et al. 1998)³. Covariance structures

considered may include: Homogenous compound symmetry (CS) and Unstructured covariance structure (UN). The structure that returns the lowest Akaike Information Criteria Corrected (AICC) will be selected as the structure that best fit the data.

Comparisons among the test conditions for each test method will be carried out using 95% confidence intervals constructed of pairwise least-square means (LSM) differences from the linear mixed model. Statistically significant difference will be established if the lower confidence limit is above 0 or the upper confidence limit is less than 0.

In all models, the Kenward and Roger method (Kenward and Roger, 1997)⁴ will be used for the calculation of the denominator of degrees of freedom.

14.7. Other Exploratory Analyses

Other exploratory analyses, in addition to tear film interferometry, will be conducted at the discretion of the clinician or Trial Biostatistician.

14.8. Interim Analysis

There will be no interim analysis in this study.

14.9. Procedure for Handling Missing Data and Drop-Outs

Missing or spurious values will not be imputed. The count of missing values will be included in the summary tables and listings.

14.10. Procedure for Reporting Deviations from Statistical Plan

The analysis will be conducted according to that specified in above sections. There are no known reasons for which it is planned to deviate from these analysis methods. If for any reason a change is made, the change will be documented in the study report along with a justification for the change.

15. DATA HANDLING AND RECORD KEEPING/ARCHIVING

15.1. Electronic Case Report Form/Data Collection

The data for this study will be captured on electronic case report forms (eCRFs) using an EDC system BioClinica. An authorized data originator will enter study data into the eCRFs using the EDC system. Data collected on equipment that is not captured in EDC will be formatted to the specification of the JJVC database manager and sent to JJVC for analysis.

Tear Film interferometry procedures and data collection will be addressed in a separate technical protocol and report. See work aid appended for information.

The clinical data will be recorded on dedicated eCRFs specifically designed to match the study procedures for each visit. Once completed, the eCRFs will be reviewed for accuracy and completeness and signed by the Investigator. The sponsor or sponsor's representatives will be

authorized to gain access to the subject recordation for the purposes of monitoring and auditing the study.

Edit checks, electronic queries, and audit trails are built into the system to ensure accurate and complete data collection. Data will be transmitted from the clinical site to a secure central database as forms are completed or updated, ensuring information accuracy, security, and confidentiality. After the final database lock, the Investigator will be provided with Individual Patient Profiles (IPP) including the full audit trail on electronic media in PDF format for all of the study data. The IPP must be retained in the study files as a certified copy of the source data for the study.

The content and structure of the eCRFs are compliant with ISO14155:2011.

15.2. Subject Record

At a minimum, subject record should be available for the following:

- subject identification
- eligibility
- study identification
- study discussion
- provision of and date of informed consent
- visit dates
- results of safety and efficacy parameters as required by the protocol
- a record of all adverse events
- follow-up of adverse events
- medical history and concomitant medication
- test article receipt/dispensing/return records
- date of study completion
- reason for early discontinuation of test article or withdrawal from the study, if applicable

The subject record is the eCRF or an external record. The author of an entry in the subject record must be identifiable. The first point of entry is considered to be the source record.

Adverse event notes must be reviewed and initialed by the Investigator.

16. DATA MANAGEMENT

16.1. Access to Source Data/Document

The Investigator/Institution will permit trial-related monitoring, audits, IEC/IRB review and regulatory inspection(s) by providing direct access to source data/documents. Should the clinical site be contacted for an audit by an IEC/IRB or regulatory authority, JJVC must be contacted and notified in writing within 24 hours.

16.2. Confidentiality of Information

Information concerning the investigational product and patent application processes, scientific data or other pertinent information is confidential and remains the property of JJVC. The Investigator may use this information for the purposes of the study only. It is understood by the Investigator that JJVC will use information developed in this clinical study in connection with the development of the investigational product and therefore may disclose it as required to other clinical investigators and to regulatory agencies. In order to allow the use of the information derived from this clinical study, the Investigator understands that he/she has an obligation to provide complete test results and all data developed during this study to the Sponsor.

16.3. Data Quality Assurance

Steps will be taken to ensure the accuracy and reliability of data, include the selection of qualified investigators and appropriate clinical sites and review of protocol procedures with the Principal Investigator. The Principal Investigator, in turn, must ensure that all Sub-Investigators and clinical site personnel are familiar with the protocol and all study-specific procedures and have appropriate knowledge of the study article.

Training on case report form completion will be provided to clinical site personnel before the start of the study. The Sponsor will review case report forms for accuracy and completeness remotely during the conduct of the study, during monitoring visits, and after transmission to data management. Any data discrepancies will be resolved with the Investigator or designee, as appropriate.

Quality Assurance representatives from JJVC may visit clinical sites to review data produced during the study and to access compliance with applicable regulations pertaining to the conduct of clinical trials. The clinical sites will provide direct access to study-related source data/documents and reports for the purpose of monitoring and auditing by JJVC and for inspection by local and regulatory authorities.

17. MONITORING

The study monitors will maintain close contact with the Principal Investigator and the Investigator's designated clinical site personnel. The monitor's responsibilities will include:

- Ensuring that the investigation is being conducted according to the protocol, any subsequent amendments, and regulatory requirements are maintained
- Ensuring the rights and wellbeing of subjects are protected
- Ensuring adequate resources, including facilities, laboratories, equipment, and qualified clinical site personnel
- Ensuring that protocol deviations are documented with corrective action plans, as applicable
- Ensuring that the clinical site has sufficient test article and supplies
- Clarifying questions regarding the study
- Resolving study issues or problems that may arise

- Reviewing of study records and source documentation verification in accordance with the monitoring plan

18. ETHICAL AND REGULATORY ASPECTS

18.1. Study-Specific Design Considerations

Potential subjects will be fully informed of the risks and requirements of the study and, during the study, subjects will be given any new information that may affect their decision to continue participation. Subjects will be told that their consent to participate in the study is voluntary and may be withdrawn at any time with no reason given and without penalty or loss of benefits to which they would otherwise be entitled. Only subjects who are fully able to understand the risks, benefits, and potential adverse events of the study, and provide their consent voluntarily will be enrolled.

18.2. Investigator Responsibility

The Principal Investigator is responsible for ensuring that the clinical study is performed in accordance with the signed agreement, the investigational plan, Section 4 of the ICH E6 guidelines on Good Clinical Practice (GCP), and applicable regulatory requirements. GCP is an international ethical and scientific quality standard for designing, conducting, recording, and reporting studies that involve the participation of human subjects. Compliance with this standard provides public assurance that the rights, safety, and well-being of study subjects are protected, consistent with the principles of the Declaration of Helsinki 64th WMA General Assembly 2013 and that the clinical study data are credible. The Investigator must maintain clinical study files in accordance with Section 8 of the ICH E6 guidelines on Good Clinical Practice (GCP), and applicable regulatory requirements.

18.3. Independent Ethics Committee or Institutional Review Board (IEC/IRB)

Before the start of the study, the Investigator (or Sponsor when applicable) will provide the IEC/IRB with current and complete copies of the following documents (where applicable):

- Final protocol and, if applicable, amendments
- Sponsor-approved informed consent form (and any other written materials to be provided to the subjects)
- Investigator's Brochure (or equivalent information) and amendments
- Sponsor-approved subject recruitment materials
- Information on compensation for study-related injuries or payment to subjects for participation in the study
- Investigator's curriculum vitae, clinical licenses, or equivalent information (unless not required, as documented by IEC/IRB)
- Information regarding funding, name of the Sponsor, institutional affiliations, other potential conflicts of interest, and incentives for subjects
- Any other documents that the IEC/IRB requests to fulfill its obligation

This study will be undertaken only after IEC/IRB has given full approval of the final protocol, amendments (if any), the informed consent form, applicable recruiting materials, and subject

compensation programs, and the Sponsor has received a copy of this approval. This approval letter must be dated and must clearly identify the documents being approved.

During the study the Investigator (or Sponsor when applicable) will send the following documents to the IEC/IRB for their review and approval, where appropriate:

- Protocol amendments
- Revision(s) to informed consent form and any other written materials to be provided to subjects
- If applicable, new or revised subject recruitment materials approved by the Sponsor
- Revisions to compensation for study-related injuries or payment to subjects for participation in the study
- Investigator's Brochure amendments or new edition(s)
- Summaries of the status of the study (at least annually or at intervals stipulated in guidelines of the IEC/IRB)
- Reports of adverse events that are serious, unanticipated, and associated with the test articles, according to the IRB's requirements
- New information that may adversely affect the safety of the subjects or the conduct of the study
- Major protocol deviations as required by the IEC/IRB
- Report of deaths of subjects under the Investigator's care
- Notification if a new Investigator is responsible for the study at the clinical site
- Any other requirements of the IEC/IRB

For protocol amendments that increase subject risk, the amendment and applicable informed consent form revisions must be submitted promptly to the IEC/IRB for review and approval before implementation of the change(s).

At least once a year, the IEC/IRB will review and reapprove this clinical study. This request should be documented in writing.

At the end of the study, the Investigator (or Sponsor where required) will notify the IEC/IRB about the study completion. Documentation of this notification must be retained at the clinical site and a copy provided to the CRO or Sponsor as applicable.

18.4. Informed Consent

Each subject must give written consent according to local requirements after the nature of the study has been fully explained. The consent form must be signed before performance of any study-related activity. The consent form that is used must be approved by both the Sponsor and by the reviewing IEC/IRB. The informed consent is in accordance with principles that originated in the Declaration of Helsinki, current ICH and GCP guidelines, applicable regulatory requirements, and Sponsor policy.

Before entry into the study, the Investigator or an authorized member of the clinical site personnel must explain to potential subject the aims, methods, reasonably anticipated benefits, and potential hazards of the study, and any discomfort it may entail. Subjects will be informed

that their participation is voluntary and that they may withdraw consent to participate at any time.

The subject will be given sufficient time to read the informed consent form and the opportunity to ask questions. After this explanation and before entry into the study, consent should be appropriately recorded by means of the subject's dated signature. After having obtained the consent, a copy of the informed consent form must be given to the subject.

18.5. Privacy of Personal Data

The collection, processing and disclosure of personal data and medical information related to the Study Subject, and personal data related to Principal Investigator and any clinical site personnel (e.g., name, clinic address and phone number, curriculum vitae) is subject to compliance with the Data Protection Act of 1998 and other applicable personal data protection and security laws and regulations. Appropriate measures will be employed to safeguard these data, to maintain the confidentiality of the person's related health and medical information, to properly inform the concerned persons about the collection and processing of their personal data, to grant them reasonable access to their personal data and to prevent access by unauthorized persons.

All information obtained during the course of the investigation will be regarded as confidential. All personal data gathered in this trial will be treated in strictest confidence by Investigators, monitors, Sponsor's personnel and IEC/IRB. No data will be disclosed to any third party without the express permission of the subject concerned, with the exception of Sponsor personnel (monitor, auditor), IEC/IRB and regulatory organizations in the context of their investigation related activities that, as part of the investigation will have access to the CRFs and subject records.

The collection and processing of personal data from subjects enrolled in this study will be limited to those data that are necessary to investigate the efficacy, safety, quality, and utility of the investigational product(s) used in this study.

These data must be collected and processed with adequate precautions to ensure confidentiality and compliance with applicable data privacy protection laws and regulations.

The Sponsor ensures that the personal data will be:

- processed fairly and lawfully
- collected for specified, explicit, and legitimate purposes and not further processed in a way incompatible with these purposes
- adequate, relevant, and not excessive in relation to said purposes
- accurate and, where necessary, kept current

Explicit consent for the processing of personal data will be obtained from the participating subject before collection of data. Such consent should also address the transfer of the data to other entities and to other countries.

The subject has the right to request through the Investigator access to his personal data and the right to request rectification of any data that are not correct or complete. Reasonable steps should be taken to respond to such a request, taking into consideration the nature of the request, the conditions of the study, and the applicable laws and regulations.

Appropriate technical and organizational measures to protect the personal data against unauthorized disclosures or access, accidental or unlawful destruction, or accidental loss or alteration must be put in place. Sponsor personnel whose responsibilities require access to personal data agree to keep the identity of study subjects confidential

19. STUDY RECORD RETENTION

In compliance with the ICH/GCP guidelines, the Investigator/Institution will maintain all CRFs and all subject records that support the data collected from each subject, as well as all study documents as specified in ICH/GCP Section 8, Essential Documents for the Conduct of a Clinical Trial, and all study documents as specified by the applicable regulatory requirement(s). The Investigator/Institution will take measures to prevent accidental or premature destruction of these documents.

Essential documents must be retained until at least 2 years after the last approval of a marketing application in an ICH region and until there are no pending or contemplated marketing applications in an ICH region or until at least 2 years have elapsed since the formal discontinuation of clinical development of the investigational product. These documents will be retained for a longer period if required by the applicable regulatory requirements or instructed by the Sponsor. It is the responsibility of the Sponsor to inform the Investigator/Institution as to when these documents no longer need to be retained.

If the responsible Investigator retires, relocates, or for other reasons withdraws from the responsibility of keeping the study records, custody must be transferred to a person who will accept the responsibility. The Sponsor must be notified in writing of the name and address of the new custodian. Under no circumstance shall the Investigator relocate or dispose of any study documents before having obtained written approval from the Sponsor.

If it becomes necessary for the Sponsor or the appropriate regulatory authority to review any documentation relating to this study, the Investigator must permit access to such reports. If the Investigator has a question regarding retention of study records, he/she should contact JJVC.

20. FINANCIAL CONSIDERATIONS

Remuneration for study services and expenses will be set forth in detail in the Investigator's Research Agreement. The Research Agreement will be signed by the Principal Investigator and a JJVC management representative prior to study initiation.

Case Report Forms will be completed in real time according to the study procedures specified in the study protocol. Case Report Forms should be completed and reviewed and signed as

applicable by the Investigator within 3 days of visit completion. Data queries must be addressed with complete responses within 3 days of generation. JJVC reserves the right to withhold remuneration until these activities are addressed.

JJVC reserves the right to withhold remuneration for costs associated with protocol violations such as:

- Continuing an ineligible subject in the study
- Scheduling a study visit outside the subject's acceptable visit range

21. PUBLICATION

This study will be registered on ClinicalTrials.gov by the Sponsor because it utilizes Marketed Product.

22. REFERENCES

1. [REDACTED]
2. Lesmes LA, Lu ZL, Baek J, Albright TD. Bayesian adaptive estimation of the contrast sensitivity function: The quick CSF method. *J Vision*. 2010;10:3.
3. Keselman HJ et al, A Comparison of Two Approaches For Selecting Covariance Structures in The Analysis of Repeated Measurements. *Covariance Structure Selection*. 1998.
4. Kenward MG, Roger JH. Small Sample Inference for Fixed Effects from Restricted Maximum Likelihood. *Biometrics*. 1997;53:3.
5. International Conference on Harmonization Guideline for Good Clinical Practice E6(R1) (ICH-GCP)
6. ISO 14155:2011: Clinical investigation of medical devices for human subjects – Good clinical practice
7. Declaration of Helsinki – Ethical principles for Medical Research Involving Human Subjects

APPENDIX A: PATIENT REPORTED OUTCOMES (STUDY QUESTIONNAIRES)

Not applicable.

APPENDIX B: PATIENT INSTRUCTION GUIDE

The patient instruction guide will be provided separately.

APPENDIX C: PACKAGE INSERT (APPROVED PRODUCT)

IMPORTANT: Please read carefully and keep this information for future use.

This Package Insert and Fitting Guide is intended for the Eye Care Professional, but should be made available to patients upon request.

The Eye Care Professional should provide the patient with the appropriate instructions that pertain to the patient's prescribed lenses. Copies are available for download at www.acuvue.com.

ACUVUE® **1-Day**
oasys WITH **HydraLuxe™**
BRAND CONTACT LENSES

**ACUVUE OASYS® Brand Contact Lenses 1-Day
with HydraLuxe™ Technology**

**ACUVUE OASYS® Brand Contact Lenses 1-Day
with HydraLuxe™ Technology for ASTIGMATISM**

**senofilcon A Soft (hydrophilic) Contact Lenses
Visibility Tinted with UV Blocker
for Daily Disposable Wear**
















CAUTION: U.S. Federal Law restricts this device to sale by or on the order of a licensed practitioner.

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SYMBOLS KEY

The following symbols may appear on the label or carton:

SYMBOL	DEFINITION
	Consult Instructions for Use
	Manufactured by or in
	Date of Manufacture
	Use By Date (expiration date)
	Batch Code
	Sterile Using Steam or Dry Heat
	Single-Use
DIA	Diameter
BC	Base Curve
D	Diopter (lens power)
CYL	Cylinder
AXIS	Axis
	Quality System Certification Symbol
	UV-Blocking
	Fee Paid for Waste Management
	CAUTION: U.S. Federal law restricts this device to sale by or on the order of a licensed practitioner
	Lens Orientation Correct
	Lens Orientation Incorrect (Lens Inside Out)

DESCRIPTION

ACUVUE OASYS® Brand Contact Lenses 1-Day and ACUVUE OASYS® Brand Contact Lenses 1-Day for ASTIGMATISM are soft (hydrophilic) contact lenses made with HydraLuxe™ Technology. They are available as spherical or toric lenses respectively.

These lenses are made of a silicone hydrogel material containing an internal wetting agent, visibility tint, and UV absorbing monomer and are tinted blue using Reactive Blue Dye #4 to make the lenses more visible for handling.

A benzotriazole UV absorbing monomer is used to block UV radiation. The transmittance characteristics for these lenses are less than 1% in the UVB range of 280 nm to 315 nm and less than 10% in the UVA range of 316 nm to 380 nm for the entire power range.

Lens Properties:

The physical/optical properties of the lens are:

- Specific Gravity (calculated): 0.98 - 1.12
- Refractive Index: 1.42
- Light Transmission: 85% minimum
- Surface Character: Hydrophilic
- Water Content: 38%
- Oxygen Permeability:

VALUE

122 x 10⁻¹¹ (cm²/sec)
(ml O₂/ml x mm Hg) at 35°C
103 x 10⁻¹¹ (cm²/sec)
(ml O₂/ml x mm Hg) at 35°C

METHOD

Fatt (boundary corrected, non-edge corrected)
Fatt (boundary corrected, edge corrected)

Lens Parameters:

- Diameter Range: 12.0 mm to 15.0 mm
- Center Thickness: varies with power
- Base Curve Range: 7.85 mm to 10.00 mm
- Spherical Power Range: -20.00D to +20.00D
- Cylinder Power Range: -0.25D to -10.00D
- Axis Range: 2.5° to 180°

AVAILABLE LENS PARAMETERS

ACUVUE OASYS® Brand 1-Day with HydraLuxe™ Technology are hemispherical shells of the following dimensions:

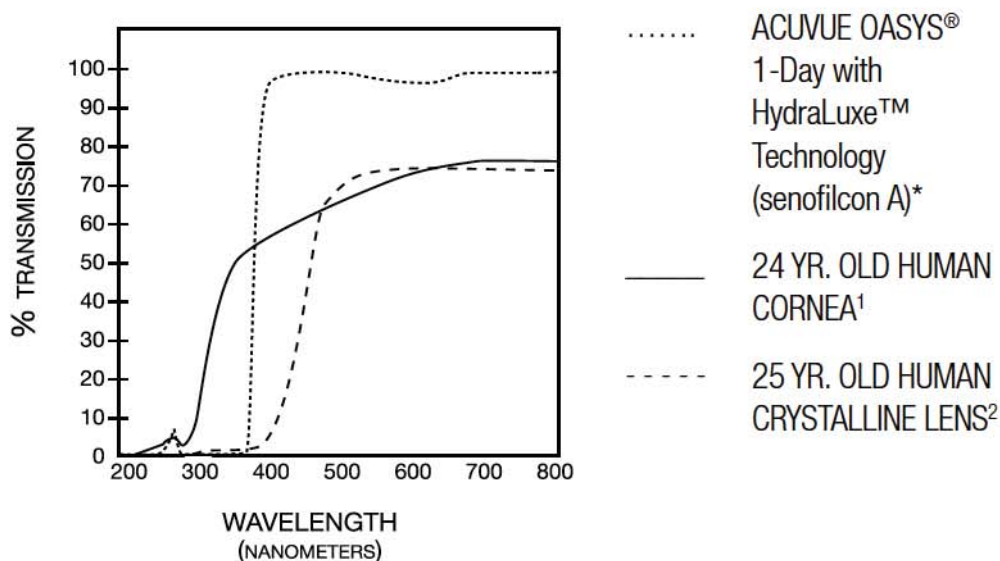
Diameter:	14.3 mm
Center Thickness:	0.085 mm to 0.221 mm (varies with power)
Base Curve:	8.5 mm, 9.0 mm
Powers:	-0.50D to -6.00D (in 0.25D increments) -6.50D to -12.00D (in 0.50D increments) +0.50D to +6.00D (in 0.25D increments) +6.50D to +8.00D (in 0.50D increments)

ACUVUE OASYS® Brand 1-Day with HydraLuxe™ Technology for ASTIGMATISM are hemitoric shells of the following dimensions:

Diameter:	14.3 mm
Center Thickness:	0.075 mm to 0.172 mm (varies with power)
Base Curve:	8.5 mm
Powers:	+0.00D to -6.00D (in 0.25D increments) Cylinders: -0.75D, -1.25D, -1.75D, -2.25D* Axis: 10° to 180° in 10° increments *-2.25D cylinder is available in 10°, 20°, 70°, 80°, 90°, 100°, 110°, 160°, 170°, 180° axes only. +0.25D to +4.00D (in 0.25D increments) -6.50D to -9.00D (in 0.50D increments) Cylinders: -0.75D, -1.25D, -1.75D Axis: 10°, 20°, 70°, 80°, 90°, 100°, 110°, 160°, 170°, 180°

TRANSMITTANCE CURVES

ACUVUE OASYS® 1-Day with HydraLuxe™ Technology (senofilcon A) Visibility Tinted with UV Blocker vs. 24 yr. old human cornea and 25 yr. old human crystalline lens.



* The data was obtained from measurements taken through the central 3-5 mm portion for the thinnest marketed lens (-9.00D lens, 0.075 mm center thickness).

¹Lerman, S., Radiant Energy and the Eye, MacMillan, New York, 1980, p. 58, figure 2-21

²Waxler, M., Hitchins, V.M., Optical Radiation and Visual Health, CRC Press, Boca Raton, Florida, 1986, p. 19, figure 5

WARNING: UV absorbing contact lenses are NOT substitutes for protective UV absorbing eyewear, such as UV absorbing goggles or sunglasses because they do not completely cover the eye and surrounding area. The patient should continue to use UV absorbing eyewear as directed.

ACTIONS

In its hydrated state, the contact lens, when placed on the cornea, acts as a refracting medium to focus light rays onto the retina.

The transmittance characteristics for these lenses are less than 1% in the UVB range of 280 nm to 315 nm and less than 10% in the UVA range of 316 nm to 380 nm for the entire power range.

NOTE: Long-term exposure to UV radiation is one of the risk factors associated with cataracts. Exposure is based on a number of factors such as environmental conditions (altitude, geography, cloud cover) and personal factors (extent and nature of outdoor activities). UV-Blocking contact lenses help provide protection against harmful UV radiation. However, clinical studies have not been done to demonstrate that wearing UV-Blocking contact lenses reduces the risk of developing cataracts or other eye disorders. The Eye Care Professional should be consulted for more information.

INDICATIONS (USES)

ACUVUE OASYS® Brand Contact Lenses 1-Day with HydraLuxe™ Technology are indicated for daily disposable wear for the optical correction of refractive ametropia (myopia and hyperopia) in phakic or aphakic persons with non-diseased eyes who may have 1.00D or less of astigmatism.

ACUVUE OASYS® Brand Contact Lenses 1-Day with HydraLuxe™ Technology for ASTIGMATISM are indicated for daily disposable wear for the optical correction of refractive ametropia (myopia and hyperopia) in phakic or aphakic persons with non-diseased eyes who may have 0.50D to 3.00D of astigmatism.

These lenses contain a UV Blocker to help protect against transmission of harmful UV radiation to the cornea and into the eye.

CONTRAINDICATIONS (REASONS NOT TO USE)

DO NOT USE these contact lenses when any of the following conditions exist:

- Acute or subacute inflammation or infection of the anterior chamber of the eye.
- Any eye disease, injury or abnormality that affects the cornea, conjunctiva, or eyelids.
- Severe insufficiency of lacrimal secretion (dry eye).

- Corneal hypoesthesia (reduced corneal sensitivity).
- Any systemic disease that may affect the eye or be exaggerated by wearing contact lenses.
- Allergic reactions of ocular surfaces or adnexa that may be induced or exaggerated by wearing contact lenses or use of contact lens solutions.
- Ocular irritation due to allergic reactions which may be caused by use of contact lens solutions (i.e., rewetting drops) that contain chemicals or preservatives (such as mercury, Thimerosal, etc.) to which some people may develop an allergic response.
- Any active corneal infection (bacterial, fungal, protozoal, or viral).
- If eyes become red or irritated.

WARNINGS

Patients should be advised of the following warnings pertaining to contact lens wear:

EYE PROBLEMS, INCLUDING CORNEAL ULCERS, CAN DEVELOP RAPIDLY AND LEAD TO LOSS OF VISION; IF THE PATIENT EXPERIENCES:

- **Eye Discomfort,**
- **Excessive Tearing,**
- **Vision Changes,**
- **Loss of Vision,**
- **Eye Redness,**
- **Or Other Eye Problems,**

THE PATIENT SHOULD BE INSTRUCTED TO IMMEDIATELY REMOVE THE LENSES AND PROMPTLY CONTACT THE EYE CARE PROFESSIONAL.

- When prescribed for daily wear, patients should be instructed not to wear lenses while sleeping. Clinical studies have shown that the risk of serious adverse reactions is increased when lenses are worn overnight, and that the risk of ulcerative keratitis is greater for

extended wear contact lens users than for daily wear users.³

- Studies have shown that contact lens wearers who are smokers have a higher incidence of adverse reactions than nonsmokers.
- Problems with contact lenses or lens care products could result in serious injury to the eye. Patients should be cautioned that proper use and care of contact lenses and lens care products are essential for the safe use of these products.
- The overall risk of ulcerative keratitis may be reduced by carefully following directions for lens care.

³New England Journal of Medicine, September 21, 1989; 321 (12), pp. 773-783

Specific Instructions for Use and Warnings:

- **Water Activity**

Instructions for Use

Do not expose contact lenses to water while wearing them.

WARNING:

Water can harbor microorganisms that can lead to severe infection, vision loss or blindness. If lenses have been submersed in water when participating in water sports or swimming in pools, hot tubs, lakes, or oceans, the patient should be instructed to discard them and replace them with a new pair. The Eye Care Professional should be consulted for recommendations regarding wearing lenses during any activity involving water.

PRECAUTIONS

Special Precautions for Eye Care Professionals:

- Due to the small number of patients enrolled in clinical investigation of lenses, all refractive powers, design configurations, or lens parameters available in the lens material are not evaluated in significant numbers. Consequently, when selecting an appropriate lens design and parameters, the Eye Care Professional should consider all characteristics of the lens that can affect lens performance and ocular health, including oxygen permeability, wettability, central and peripheral thickness, and optic zone diameter.

- The potential impact of these factors on the patient's ocular health should be carefully weighed against the patient's need for refractive correction; therefore, the continuing ocular health of the patient and lens performance on the eye should be carefully monitored by the prescribing Eye Care Professional.
- Patients who wear these lenses to correct presbyopia using monovision may not achieve the best corrected visual acuity for either far or near vision. Visual requirements vary with the individual and should be considered when selecting the most appropriate type of lens for each patient.
- Fluorescein, a yellow dye, should not be used while the lenses are on the eyes. The lenses absorb this dye and become discolored. Whenever fluorescein is used in eyes, the eyes should be flushed with a sterile saline solution that is recommended for in-eye use.
- Eye Care Professionals should instruct the patient to remove the lenses immediately if the eyes become red or irritated.

Eye Care Professionals should carefully instruct patients about the following care regimen and safety precautions.

Handling Precautions:

- Before leaving the Eye Care Professional's office, the patient should be able to promptly remove the lenses or should have someone else available who can remove the lenses for him or her.
- DO NOT use if the sterile blister package is opened or damaged.
- Always wash and rinse hands before handling lenses. Do not get cosmetics, lotions, soaps, creams, deodorants, or sprays in the eyes or on the lenses. It is best to put on lenses before putting on makeup. Water-based cosmetics are less likely to damage lenses than oil-based products.
- DO NOT touch contact lenses with the fingers or hands if the hands are not free of foreign materials, as microscopic scratches of the lenses may occur, causing distorted vision and/or injury to the eye.
- Carefully follow the handling, insertion, removal, and wearing instructions in the "Patient Instruction Guide" for the prescribed

wearing schedule and those prescribed by the Eye Care Professional.

- Always handle lenses carefully and avoid dropping them.
- Never use tweezers or other tools to remove lenses from the lens container unless specifically indicated for that use. Slide the lens up the side of the bowl until it is free of the container.
- Do not touch the lens with fingernails.

Lens Wearing Precautions:

- If the lens sticks (stops moving) on the eye, follow the recommended directions in "Care for a Sticking (Non-Moving) Lens." The lens should move freely on the eye for the continued health of the eye. If non-movement of the lens continues, the patient should be instructed to immediately consult his or her Eye Care Professional.
- Never wear lenses beyond the period recommended by the Eye Care Professional.
- The patient should be advised to never allow anyone else to wear their lenses. They have been prescribed to fit their eyes and to correct their vision to the degree necessary. Sharing lenses greatly increases the chance of eye infections.
- If aerosol products, such as hair spray, are used while wearing lenses, exercise caution and keep eyes closed until the spray has settled.
- Avoid all harmful or irritating vapors and fumes while wearing lenses.
- Always discard lenses worn as prescribed by the Eye Care Professional.

Lens Care Precautions:

- The patient should be informed that no cleaning or disinfection is needed when lenses are worn for daily disposable wear. Patients should always dispose of lenses when removed and have spare lenses or spectacles available.

Other Topics to Discuss with Patients:

- Always contact the Eye Care Professional before using any medicine in the eyes.
- Certain medications, such as antihistamines, decongestants, diuretics, muscle relaxants, tranquilizers, and those for motion sickness may cause dryness of the eye, increased lens awareness, or blurred vision. Should such conditions exist, proper remedial measures should be prescribed. Depending on the severity, this could include the use of lubricating drops that are indicated for use with soft contact lenses or the temporary discontinuance of contact lens wear while such medication is being used.
- Oral contraceptive users could develop visual changes or changes in lens tolerance when using contact lenses. Patients should be cautioned accordingly.
- As with any contact lens, follow-up visits are necessary to assure the continuing health of the patient's eyes. The patient should be instructed as to a recommended follow-up schedule.

Who Should Know That the Patient is Wearing Contact Lenses?

- Patients should inform all doctors (Health Care Professionals) about being a contact lens wearer.
- Patients should always inform their employer of being a contact lens wearer. Some jobs may require use of eye protection equipment or may require that the patient not wear contact lenses.

ADVERSE REACTIONS

The patient should be informed that the following problems may occur when wearing contact lenses:

- The eye may burn, sting, and/or itch.
- There may be less comfort than when the lens was first placed on the eye.
- There may be a feeling of something in the eye (foreign body, scratched area).
- There may be the potential for some temporary impairment due to

peripheral infiltrates, peripheral corneal ulcers, or corneal erosion. There may be the potential for other physiological observations, such as local or generalized edema, corneal neovascularization, corneal staining, injection, tarsal abnormalities, iritis, and conjunctivitis; some of which are clinically acceptable in low amounts.

- There may be excessive watering, unusual eye secretions, or redness of the eye.
- Poor visual acuity, blurred vision, rainbows, or halos around objects, photophobia, or dry eyes may also occur if the lenses are worn continuously or for too long a time.

The patient should be instructed to conduct a simple 3-part self-examination at least once a day. They should ask themselves:

- How do the lenses feel on my eyes?
- How do my eyes look?
- Have I noticed a change in my vision?

If the patient reports any problems, he or she should be instructed to **IMMEDIATELY REMOVE THE LENS**. If the problem or discomfort stops, the patient should discard the lens and place a new fresh lens on the eye.

If after inserting the new lens, the problem continues, the patient should be directed to **IMMEDIATELY REMOVE THE LENS AND CONTACT HIS OR HER EYE CARE PROFESSIONAL**.

The patient should be instructed **NOT** to use a new lens as self-treatment for the problem.

The patient should be advised that when any of the above symptoms occur, a serious condition such as infection, corneal ulcer, neovascularization, or iritis may be present. He or she should be instructed to seek immediate professional identification of the problem and prompt treatment to avoid serious eye damage.

GENERAL FITTING GUIDELINES

A. Patient Selection

Patients selected to wear these lenses should be chosen based on:

- Motivation to wear lenses
- Ability to follow instructions regarding lens wear care
- General health
- Ability to adequately handle and care for the lenses
- Ability to understand the risk and benefits of lens wear

Patients who do not meet the above criteria should not be provided with contact lenses.

B. Pre-fitting Examination

Initial evaluation of the patient should begin with a thorough case history to determine if there are any contraindications to contact lens wear. During the case history, the patient's visual needs and expectations should be determined as well as an assessment of their overall ocular, physical, and mental health.

Preceding the initial selection of trial contact lenses, a comprehensive ocular evaluation should be performed that includes, but is not limited to, the measurement of distance and near visual acuity, distance and near refractive prescription (including determining the preferred reading distance for presbyopes), keratometry, and biomicroscopic evaluation.

Based on this evaluation, if it is determined that the patient is eligible to wear these lenses, the Eye Care Professional should proceed to the lens fitting instructions as outlined below.

C. Initial Power Determination

A spectacle refraction should be performed to establish the patient's baseline refractive status and to guide in the selection of the appropriate lens power. Remember to compensate for vertex distance if the refraction is greater than $\pm 4.00D$.

D. Base Curve Selection (Trial Lens Fitting)

The following trial lenses should be selected for patients regardless of keratometry readings. However, keratometry measurements should be performed to establish the patient's baseline ocular status.

CP-5089696-01-001-001

- ACUVUE OASYS® 1-Day: 8.5 mm/14.3 mm
- ACUVUE OASYS® 1-Day for ASTIGMATISM: 8.5 mm/14.3 mm

The trial lens should be placed on each of the patient's eyes and evaluated after the patient has adjusted to the lenses.

1. Criteria of a Properly Fit Lens

A properly fit lens will center and completely cover the cornea (i.e., no limbal exposure), have sufficient movement to provide tear exchange under the contact lens with the blink, and be comfortable. The lens should move freely when manipulated digitally with the lower lid, and then return to its properly centered position when released.

2. Criteria of a Flat Fitting Lens

A flat fitting lens may exhibit one or more of the following characteristics: decentration, incomplete corneal coverage (i.e., limbal exposure), excessive movement with the blink, and/or edge standoff. If the lens is judged to be flat fitting, it should not be dispensed to the patient.

3. Criteria of a Steep Fitting Lens

A steep fitting lens may exhibit one or more of the following characteristics: insufficient movement with the blink, conjunctival indentation, and resistance when pushing the lens up digitally with the lower lid. If the lens is judged to be steep fitting, it should not be dispensed to the patient.

If the initial trial base curve is judged to be flat or steep fitting, the alternate base curve, if available, should be trial fit and evaluated after the patient has adjusted to the lens. The lens should move freely when manipulated digitally with the lower lid, and then return to a properly centered position when released. If resistance is encountered when pushing the lens up, the lens is fitting tightly and should not be dispensed to the patient.

E. Final Lens Power (Spherical)

A spherical over-refraction should be performed to determine the final lens power after the lens fit is judged acceptable. The spherical over-refraction should be combined with the trial lens power to determine the final lens prescription. The patient should experience good visual acuity with the correct lens power unless there is excessive residual astigmatism.

Example 1	
Diagnostic lens:	-2.00D
Spherical over-refraction:	-0.25D
Final lens power:	-2.25D
Example 2	
Diagnostic lens:	-2.00D
Spherical over-refraction:	+0.25D
Final lens power:	-1.75D

If vision is acceptable, perform a slit lamp examination to assess adequate fit (centration and movement). If the fit is acceptable, dispense the lenses and instruct the patient to return in one week for reassessment (see dispensing and follow up information in **PATIENT MANAGEMENT**).

All patients should be supplied with a copy of the PATIENT INSTRUCTION GUIDE for these lenses. Copies are available for download at www.acuvue.com.

TORIC FITTING GUIDELINES

Although most aspects of the fitting procedure are identical for all types of soft contact lenses, including toric lenses, there are some additional steps and/or rules to follow to assure the proper fit of toric lenses.

The only new steps you must follow in prescribing ACUVUE OASYS® 1-Day for ASTIGMATISM are that you must determine the stability, repeatability, and drift angle of the lens axis so that you can prescribe the correct lens axis for the patient.

A. How to Determine Lens Cylinder and Axis Orientation

1. Locate the Orientation Marks

To help determine the proper orientation of the toric lens, you'll find two primary marks approximately 1 mm from the lens edge representing the vertical position on opposite ends of the lens at 6 and 12 o'clock (Fig. 1). Because of the lens' ballasting system, either mark can represent the vertical position – there is no "top" and "bottom" as in a prism-ballasted lens. You don't need to view both marks to assess orientation; simply look for the 6 o'clock mark as you would with a prism-ballasted lens.



Figure 1

You'll need a slit lamp biomicroscope with a 1 to 2 mm parallelepiped beam to highlight the marks when the lens is fitted to the eye. There are a number of techniques you can use to improve the visibility of the 6 o'clock mark. Using a parallelepiped beam and medium magnification (10x or 15x), slowly pan down the lens, looking just below the direct illumination at the retroilluminated area. Backlighting the mark this way should make it more visible. Sometimes manipulating the lower lid may be necessary to uncover the mark.

2. Observe Lens Rotation and Stability

Observe the position and stability of the "bottom" mark. It usually stabilizes at the 6 o'clock position. If it does, calculation of the lens power will be straightforward. The 6 o'clock position is not a "must"; however, the absolute requirement is that the axis position be stable and repeatable.

The mark may stabilize somewhat left or right (drift) of the vertical meridian and still enable you to fit a toric lens for that eye, as long as the lens always returns to the same "drift axis" position after settling. The deviation can be compensated for in the final prescription. Your objective is to ensure that whatever position the initial lens assumes near 6 o'clock, this position must be stable and repeatable. With full eye movement or heavy blink, you may see the marks swing away, but they must return quickly to the original stable position. If the lens does not return quickly, you may need to select a different lens.

3. Assessing Rotation

Imagine the eye as a clock dial and every hour represents a 30° interval. If the orientation mark of the initial lens stabilizes somewhat left or right of the vertical position, the final lens will orient on the eye with the same deviation. You can use an axis reticule in the slit lamp or use a line-scribed lens in a spectacle trial frame to measure or estimate the "drift angle" of the cylinder axis.

To compensate for this "drift", measure or estimate the "drift", then add or subtract it from the refractive axis to determine the correct cylinder axis. Use the LARS (Left Add, Right Subtract) method to determine which direction to compensate.

B. Final Lens Power

When the diagnostic lens has its axis aligned in the same meridian as the patient's refractive axis, a spherocylindrical over-refraction may be performed and visual acuity determined. However, in the case of crossed axes, such as when the diagnostic lens axis is different from the spectacle cylinder axis, it is not advisable to perform a full spherocylindrical over-refraction because of the difficulty in computing the resultant power. A spherical over-refraction without cylinder refraction may be performed.

If the required cylinder correction falls between two available cylinder powers, it is recommended to prescribe the lower cylinder power lens. See below for instructions on how to determine the final lens power.

1. For the Sphere

If sphere alone or combined sphere and cylinder Rx $> \pm 4.00D$, compensate for vertex distance. If sphere alone or combined sphere and cylinder Rx $\leq \pm 4.00D$, vertex compensation is not necessary.

2. For the Cylinder

Adjust the axis by the drift angle using the LARS method. Choose a cylinder that is $\leq 0.50D$ from the refractive cylinder.

3. Case Examples

Example 1

Manifest (spectacle) refraction:

O.D. $-2.50D / -1.25D \times 180^\circ$ 20/20

O.S. $-2.00D / -1.00D \times 180^\circ$ 20/20

Choose a diagnostic lens for each eye with axis 180° . Place the lens on each eye and allow a minimum of 3 minutes for it to equilibrate, based on the patient's initial response to the lens. If the lens has not yet stabilized, recheck until stable.

Check the orientation of the axis mark. If the bottom axis mark is in the 6 o'clock position on both eyes, choose the appropriate cylinder as listed previously. If the lens has not yet stabilized, recheck until stable.

Here is the Rx Prescribed:

O.D. $-2.50D / -1.25D \times 180^\circ$

O.S. $-2.00D / -0.75D \times 180^\circ$

Example 2

Manifest (spectacle) refraction:

O.D. -3.00D / -1.00D x 90° 20/20

O.S. -4.75D / -2.00D x 90° 20/20

Choose diagnostic lenses of -3.00D / -0.75D x 90° for the right eye and -4.50D / -1.75D x 90° for the left eye, the nearest lenses available to the spherical power, cylinder power, and axis needed. For the left eye, since the manifest refraction called for -4.75D, compensating for vertex distance the sphere is reduced by 0.25D to -4.50D. The cylinder power will be -1.75D. Place the lens on each eye and allow a minimum of 3 minutes for it to equilibrate, based on the patient's initial response to the lens. If the lens has not yet stabilized, recheck until stable.

Right Eye

The orientation mark on the right lens rotates left from the 6 o'clock position by 10° and remains stable in this position. Compensation for this rotation should be done as follows:

Compensate the 10° axis drift by adding it to the manifest refraction axis.

Here is the Rx Prescribed:

O.D. -3.00D / -0.75D x 100°

Left Eye

The orientation mark on the left lens rotates right from the 6 o'clock position by 10° and remains stable in this position.

Compensate for the 10° axis drift by subtracting it from the manifest refraction axis.

Here is the Rx Prescribed:

O.S. -4.50D / -1.75D x 80°

If vision is acceptable, perform a slit lamp examination to assess adequate fit (centration and movement). If fit is acceptable, dispense the lenses instructing the patient to return in one week for reassessment (see dispensing and follow-up information in PATIENT MANAGEMENT).

All patients should be supplied with a copy of the PATIENT INSTRUCTION GUIDE for these lenses. Copies are available for download at www.acuvue.com.

MONOVISION FITTING GUIDELINES

A. Patient Selection

1. Monovision Needs Assessment

For a good prognosis, the patient should have adequately corrected distance and near visual acuity in each eye. The amblyopic patient or the patient with significant astigmatism (greater than 1.00D) in one eye may not be a good candidate for monovision correction with these lenses.

Occupational and environmental visual demands should be considered. If the patient requires critical vision (visual acuity and stereopsis), it should be determined by trial whether this patient can function adequately with monovision correction. Monovision contact lens wear may not be optimal for activities such as:

- visually demanding situations such as operating potentially dangerous machinery or performing other potentially hazardous activities; and
- driving automobiles (e.g., driving at night). Patients who cannot meet state driver's licensing requirements with monovision correction should be advised to not drive with this correction, OR may require that additional over-correction be prescribed.

2. Patient Education

All patients do not function equally well with monovision correction. Patients may not perform as well for certain tasks with this correction as they have with spectacles (multifocal, bifocal, trifocal, readers, progressives). Each patient should understand that monovision, as well as other presbyopic alternatives, can create a vision compromise that may reduce visual acuity and depth perception for distance and near tasks. Therefore, caution should be exercised when the patient is wearing the correction for the first time until they are familiar with the vision provided in visually challenging environments (e.g., reading a menu in a dim restaurant, driving at night in rainy/foggy conditions, etc.). During the fitting process, it is necessary for the patient to realize the disadvantages as well as the advantages of clear near vision and straight ahead and upward gaze that monovision contact lenses provide.

B. Eye Selection

1. Ocular Preference Determination Methods

Generally, the non-dominant eye is corrected for near vision. The following two methods for eye dominance can be used.

Method 1: Determine which eye is the "sighting eye." Have the patient point to an object at the far end of the room. Cover one eye. If the patient is still pointing directly at the object, the eye being used is the dominant (sighting) eye.

Method 2: Determine which eye will accept the added power with the least reduction in vision. Place a hand-held trial lens equal to the spectacle near ADD in front of one eye and then the other while the distance refractive error correction is in place for both eyes. Determine whether the patient functions best with the near ADD lens over the right or left eye.

2. Other Eye Selection Methods

Other methods include the "Refractive Error Method" and the "Visual Demands Method."

Refractive Error Method

For anisometropic correction, it is generally best to fit the more hyperopic (less myopic) eye for distance and the more myopic (less hyperopic) eye for near.

Visual Demands Method

Consider the patient's occupation during the eye selection process to determine the critical vision requirements. If a patient's gaze for near tasks is usually in one direction, correct the eye on that side for near.

Example: A secretary who places copy to the left side of the desk will function best with the near lens on the left eye.

C. Special Fitting Characteristics

1. Unilateral Vision Correction

There are circumstances where only one contact lens is required. As an example, an emmetropic patient would only require a near lens, whereas a bilateral myope would require corrective lenses on

both eyes.

Examples:

A presbyopic emmetropic patient who requires a +1.75D ADD would have a +1.75D lens on the near eye and the other eye left without correction.

A presbyopic patient requiring a +1.50D ADD who is -2.50D myopic in the right eye and -1.50D myopic in the left eye may have the right eye corrected for distance and the left uncorrected for near.

2. Near ADD Determination

Always prescribe the lens power for the near eye that provides optimal near acuity at the midpoint of the patient's habitual reading distance. However, when more than one power provides optimal reading performance, prescribe the least plus (most minus) of the powers.

3. Trial Lens Fitting

A trial fitting is performed in the office to allow the patient to experience monovision correction. Lenses are fit according to the GENERAL FITTING GUIDELINES for base curve selection described in this Package Insert.

Case history and standard clinical evaluation procedure should be used to determine the prognosis. Determine the distance correction and the near correction. Next determine the near ADD. With trial lenses of the proper power in place, observe the reaction to this mode of correction.

Allow the lenses to settle for about 20 minutes with the correct power lenses in place. Walk across the room and have the patient look at you. Assess the patient's reaction to distance vision under these circumstances. Then have the patient look at familiar near objects such as a watch face or fingernails. Again assess the reaction. As the patient continues to look around the room at both near and distance objects, observe the reactions. Only after these vision tests are completed should the patient be asked to read print. Evaluate the patient's reaction to large print (e.g., typewritten copy) at first and then graduate to newsprint and finally smaller type sizes.

After the patient's performance under the above conditions is completed, tests of visual acuity and reading ability under

conditions of moderately dim illumination should be attempted.

An initial unfavorable response in the office, while indicative of a guarded prognosis, should not immediately rule out a more extensive trial under the usual conditions in which a patient functions.

4. Adaptation

Visually demanding situations should be avoided during the initial wearing period. A patient may at first experience some mild blurred vision, dizziness, headaches, and a feeling of slight imbalance. You should explain the adaptational symptoms to the patient. These symptoms may last for a brief minute or for several weeks. The longer these symptoms persist, the poorer the prognosis for successful adaptation.

To help in the adaptation process, the patient can be advised to first use the lenses in a comfortable familiar environment such as in the home.

Some patients feel that automobile driving performance may not be optimal during the adaptation process. This is particularly true when driving at night. Before driving a motor vehicle, it may be recommended that the patient be a passenger first to make sure that their vision is satisfactory for operating an automobile. During the first several weeks of wear (when adaptation is occurring), it may be advisable for the patient to only drive during optimal driving conditions. After adaptation and success with these activities, the patient should be able to drive under other conditions with caution.

D. Other Suggestions

The success of the monovision technique may be further improved by having the patient follow the suggestions below:

- Have a third contact lens (distance power) to use when critical distance viewing is needed.
- Have a third contact lens (near power) to use when critical near viewing is needed.
- Having supplemental spectacles to wear over the monovision contact lenses for specific visual tasks may improve the success of monovision correction. This is particularly applicable for those patients who cannot meet state driver's licensing requirements with monovision correction.
- Make use of proper illumination when carrying out visual tasks.

Monovision fitting success can be improved by the following suggestions:

- Reverse the distance and near eyes if a patient is having trouble adapting.
- Refine the lens powers if there is trouble with adaptation. Accurate lens power is critical for presbyopic patients.
- Emphasize the benefits of clear near vision and straight ahead and upward gaze with monovision.

The decision to fit a patient with monovision correction is most appropriately left to the Eye Care Professional in conjunction with the patient after carefully considering the patient's needs.

All patients should be supplied with a copy of the PATIENT INSTRUCTION GUIDE for these lenses. Copies are available for download at www.acuvue.com.

PATIENT MANAGEMENT

Dispensing Visit

Each sterile lens is supplied in a foil-sealed plastic package containing buffered saline solution with methyl ether cellulose. To remove the lens from the container, peel back the foil seal, place a finger on the lens, and slide the lens up the side of the bowl of the lens package until it is free of the container.

- Evaluate the physical fit and visual acuity of the lens on each eye.
- Teach the patient how to apply and remove his or her lenses.
- Explain daily disposable lens wear and schedule a follow-up examination.
- **Provide the patient with a copy of the PATIENT INSTRUCTION GUIDE for these lenses. Copies are available for download at www.acuvue.com.**

REVIEW THESE INSTRUCTIONS WITH THE PATIENT SO THAT HE OR SHE CLEARLY UNDERSTANDS THE PRESCRIBED WEARING AND REPLACEMENT SCHEDULES.

Follow-Up Examinations

Follow-up care (necessary to ensure continued successful contact lens wear) should include routine periodic progress examinations, management of specific problems, if any, and a review with the patient of the wear schedule, daily disposable modality, and proper lens handling procedures.

Recommended Follow-up Examination Schedule (complications and specific problems should be managed on an individual patient basis):

1. One week from the initial lens dispensing to patient
2. One month post-dispensing
3. Every three to six months thereafter

NOTE: Preferably, at the follow-up visits, lenses should be worn for at least six hours.

Recommended Procedures for Follow-up Visits:

1. Solicit and record patient's symptoms, if any.
2. Measure visual acuity monocularly and binocularly at distance and near with the contact lenses.
3. Perform an over-refraction at distance and near to check for residual refractive error.
4. With the biomicroscope, judge the lens fitting characteristics (as described in the **GENERAL FITTING GUIDELINES**) and evaluate the lens surface for deposits and damage.
5. Following lens removal, examine the cornea and conjunctiva with the biomicroscope and fluorescein (unless contraindicated).
 - The presence of vertical corneal striae in the posterior central cornea and/or corneal neovascularization is indicative of excessive corneal edema.
 - The presence of corneal staining and/or limbal-conjunctival hyperemia can be indicative of an unclean lens, a reaction to solution preservatives, excessive lens wear and/or a poorly fitting lens.
 - Papillary conjunctival changes may be indicative of an unclean and/or damaged lens.
6. Periodically perform keratometry and spectacle refractions. The values should be recorded and compared to the baseline measurements.

If any observations are abnormal, use professional judgment to alleviate the problem and restore the eye to optimal conditions. If

CD-5084756-6150-0101

the criteria for successful fit are not satisfied during any follow-up examinations, repeat the patient's trial fitting procedure and refit the patient.

WEARING SCHEDULE

The wearing schedule should be determined by the Eye Care Professional. Regular checkups, as determined by the Eye Care Professional, are also extremely important.

Patients tend to overwear the lenses initially. The Eye Care Professional should emphasize the importance of adhering to the initial maximum wearing schedule. Maximum wearing time should be determined by the Eye Care Professional based upon the patient's physiological eye condition, because individual response to contact lenses varies.

The maximum suggested wearing time for these lenses is:

Day	Hours
1	6-8
2	8-10
3	10-12
4	12-14
5 and after	all waking hours

REPLACEMENT SCHEDULE

These lenses are indicated for daily disposable wear and should be discarded upon removal.

LENS CARE DIRECTIONS

When lenses are prescribed for daily disposable wear, the Eye Care Professional should provide the patient with appropriate and adequate warnings and instructions for daily disposable lens wear at the time they are dispensed.

The Eye Care Professional should review with patients that no cleaning or disinfection is needed with daily disposable lenses. Patients should always dispose of lenses when they are removed and have spare lenses or spectacles available.

Basic Instructions

- Always wash, rinse, and dry hands before handling contact lenses.
- Do not use saliva or anything other than the recommended solutions for lubricating or rewetting lenses. Do not put lenses in the mouth.
- Eye Care Professionals may recommend a lubricating/rewetting solution which can be used to wet (lubricate) lenses while they are being worn to make them more comfortable.

Care for a Sticking (Non-Moving) Lens

If the lens sticks (stops moving), the patient should be instructed to apply a few drops of the recommended lubricating or rewetting solution directly to the eye and wait until the lens begins to move freely on the eye before removing it. If non-movement of the lens continues after a few minutes, the patient should immediately consult the Eye Care Professional.

EMERGENCIES

The patient should be informed that if chemicals of any kind (household products, gardening solutions, laboratory chemicals, etc.) are splashed into the eyes, the patient should: **FLUSH EYES IMMEDIATELY WITH TAP WATER AND IMMEDIATELY CONTACT THE EYE CARE PROFESSIONAL OR VISIT A HOSPITAL EMERGENCY ROOM WITHOUT DELAY.**

HOW SUPPLIED

Each UV-blocking sterile lens is supplied in a foil-sealed plastic package containing buffered saline solution with methyl ether cellulose. The plastic package is marked with the following:

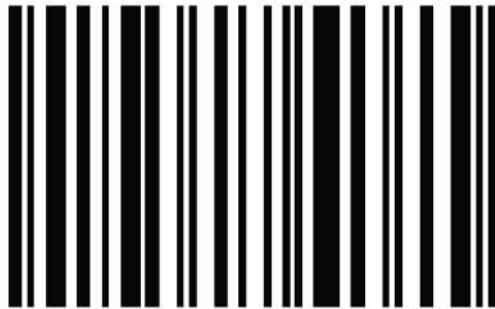
- ACUVUE OASYS® 1-Day: base curve, power, diameter, lot number, and expiration date
- ACUVUE OASYS® 1-Day for ASTIGMATISM: base curve, power, diameter, cylinder, axis, lot number, and expiration date

REPORTING OF ADVERSE REACTIONS

All serious adverse experiences and adverse reactions observed in patients wearing these lenses or experienced with these lenses should be reported to:

Johnson & Johnson Vision Care, Inc.
7500 Centurion Parkway
Jacksonville, FL 32256
USA
Tel: 1-800-843-2020
www.acuvue.com

Johnson & Johnson Vision Care, Inc.
7500 Centurion Parkway
Jacksonville, FL 32256
USA
Tel: 1-800-843-2020
www.acuvue.com



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In USA: Johnson & Johnson Vision Care, Inc.
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Revision number: AO-03-16-13

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CR-5968 Protocol v3.0

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APPENDIX D. VISUAL ACUITY MEASUREMENT WITH M&S CLINICAL TRIAL SUITE

Title:	Visual Acuity Measurement with M&S Clinical Trial Suite	
Document Type:	Work Aid	
Document Number:	N/A	Revision Number: 1

OVERVIEW This document contains the procedure to measure visual acuity using the laptop based M&S Clinical Trial Suite (CTS).

MATERIALS

- Lenovo laptop with CTS software and USB accessories (glare lights, colorimeter, USB hub)
- Android tablet with CTS app (ensure tablet battery is charged)
- Trial frame with occluder or eye patch (if testing monocular acuity)
- Tabletop chinrest (if testing intermediate or near acuity)
- Neutral density (ND) plastic filter (if testing under low screen luminance conditions)
- Soft cloth cases for android tablet and ND filter

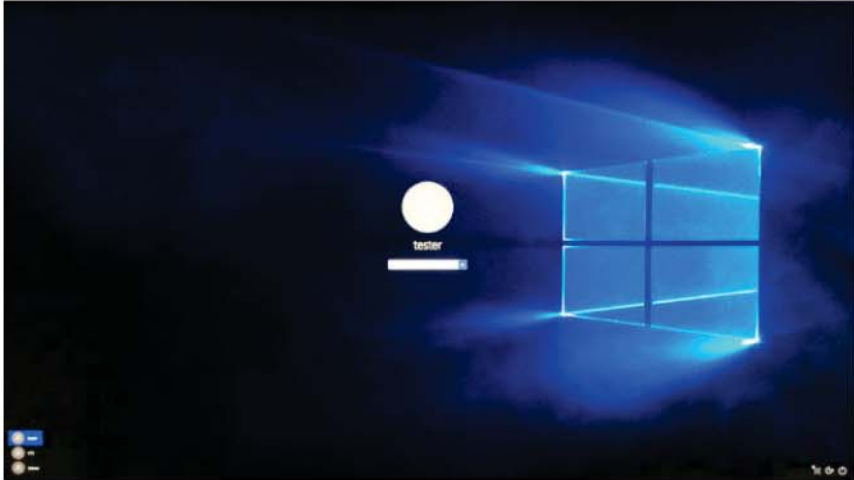

MEASUREMENT OF VISUAL ACUITY The following steps are used in the measurement of visual acuity using the CTS system.

NOTES:



- **ENSURE ANDROID TABLET IS CONNECTED TO A POWER OUTLET FOR CHARGING WHEN NOT IN USE.**
- **STORE THE TABLET AND ND FILTER IN THEIR SOFT CASES WHEN NOT IN USE**
- **THE SOFT CASES SHOULD BE USED TO CLEAN THE LAPTOP MONITOR AND MESOPIC FILTER IF FINGERPRINTS OR DUST ARE VISIBLE**



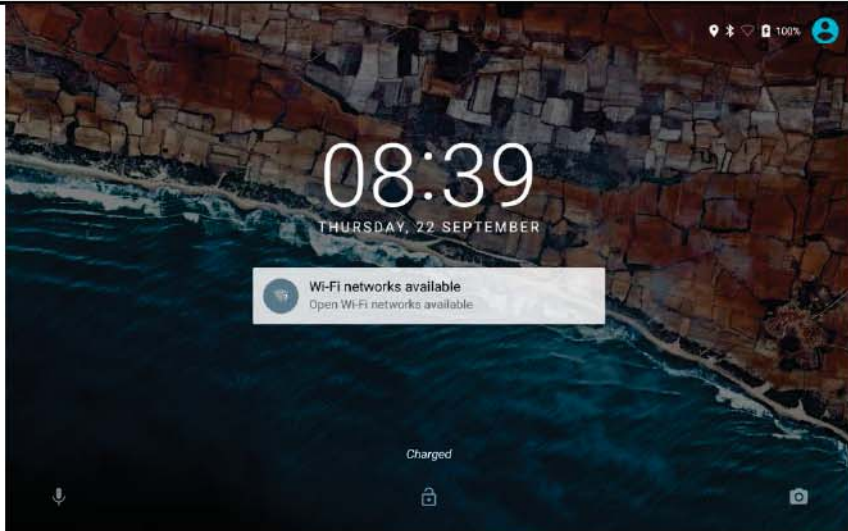
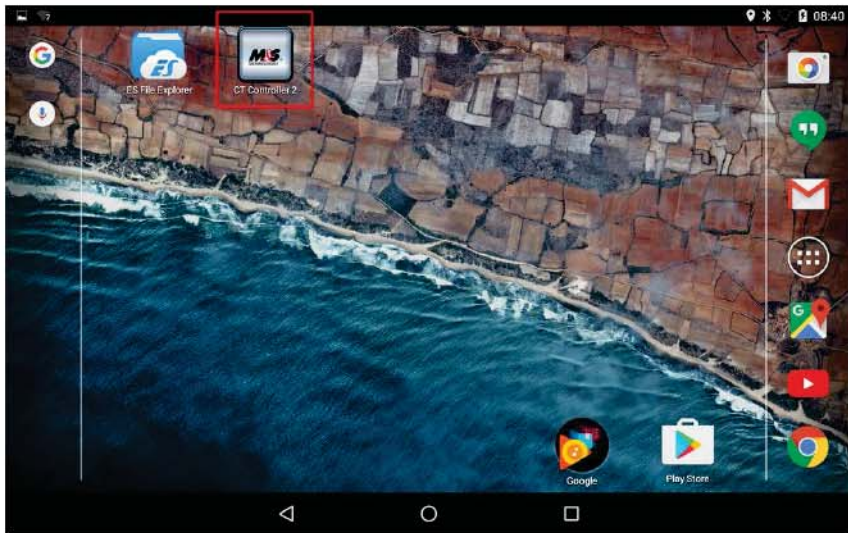
Title:	Visual Acuity Measurement with M&S Clinical Trial Suite	
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Step	Action
1.	<p>Turn on the laptop. At the Windows login screen, select 'Tester' from the lower left menu and login using the following credentials:</p> <p>User: 'Tester' Password: cts2016</p>  <p>NOTE: Due to the screen brightness changing as it warms up, the computer must be switched on for at least 15 minutes (with an image displayed on the monitor i.e. not in sleep mode) before beginning the test.</p>
2.	<p>The CTS software should automatically load. If the software does not load, or needs to be restarted, double click the desktop icon. The software takes a minute or so to fully load, during which time a splash screen will be displayed.</p> 
3.	<p>At the CTS login screen, log in using the following credentials:</p> <p>UserName: CTS_User Password: cts2016</p>



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4.	<p>Turn on the android tablet by holding down the power button.</p> 
5.	<p>Unlock the android by swiping upwards on the lock screen.</p>

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6.	<p>Load the CTS android app by tapping the app icon.</p> 

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7.	<p>The app should display a 'disconnect' button on the top right of the android screen.</p> 
8.	<p>At the CTS start screen, click the 'Start Test' button</p> 
9.	<p>The software will instruct you to check the room luminance. Place the colorimeter on a flat surface next to the laptop with the logo and unobstructed light sensor facing upwards, as shown below:</p>

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Adjust the room lighting as necessary, then click 'NEXT'. Verify the room luminance meets protocol requirements per the directions in CTP-2059. The suggested room illumination is < 2.5 lux for low luminance (mesopic) testing and > 400 lux for high luminance (photopic) testing, unless specified otherwise in the protocol.

Check Ambient Room Light with Luminance Sensor by Placing Flat on a Table with Lights OFF and Click Next

NEXT

BACK



10. The software will then measure the laptop screen luminance. Detach the cover from the base of the colorimeter, then hang the colorimeter over the monitor as shown below:



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	<div data-bbox="475 275 883 590" data-label="Image"> </div> <div data-bbox="899 275 1318 590" data-label="Image"> </div> <p>Ensure the colorimeter sensor is sitting flush against the screen surface in the center of the white box. If necessary, the sensor may be gently held against the screen to ensure it is sitting flush against the surface. Click 'NEXT' and wait for the software to complete the measurements.</p> <div data-bbox="584 737 1201 995" data-label="Image"> </div>
11.	<p>Once complete, the software will display the calibrated luminance measurements. Click 'OK'.</p> <div data-bbox="475 1087 1318 1562" data-label="Image"> </div> <p>Replace the cover on the colorimeter. Note that there is only 1 correct orientation for the plastic cover (ensure cables are aligned).</p>

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12.	<p>Enter the following values into the distance and size verification screen:</p> <p>Width in mm: 100 Height in mm: 100</p> <p>Then click 'Next'.</p> <div data-bbox="467 905 1317 1390"> <p style="text-align: center;">Distance and Size Verification</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>Verify Size of Black Letter E with ruler in millimeters</p> <p>Enter Width in mm: 100 Enter Height in mm: 100</p> <ul style="list-style-type: none"> • Testing Distance is 4 meters • Position display screen at eye level • Confirm display screen is at 90° angle from keyboard </div> </div> <div style="text-align: right; margin-top: 10px;"> Cancel Next </div> </div>
13.	<p>At the CTS settings screen, on the left hand side, select the testing paradigm to be used:</p> <ul style="list-style-type: none"> - If acuity is to be measured with high contrast optotypes, select 'Distance' under 'Visual Acuity – ETDRS', and ensure 'Chart' is selected in the adjacent dropdown box

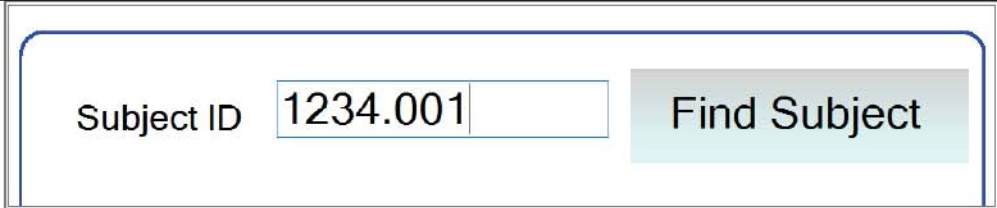
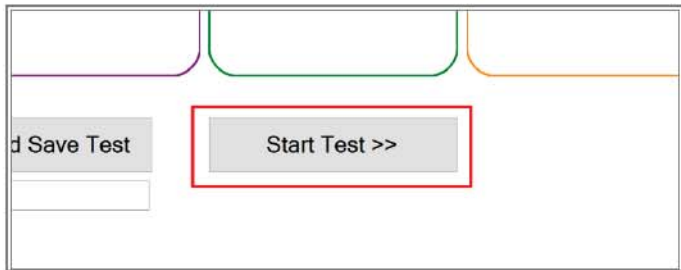
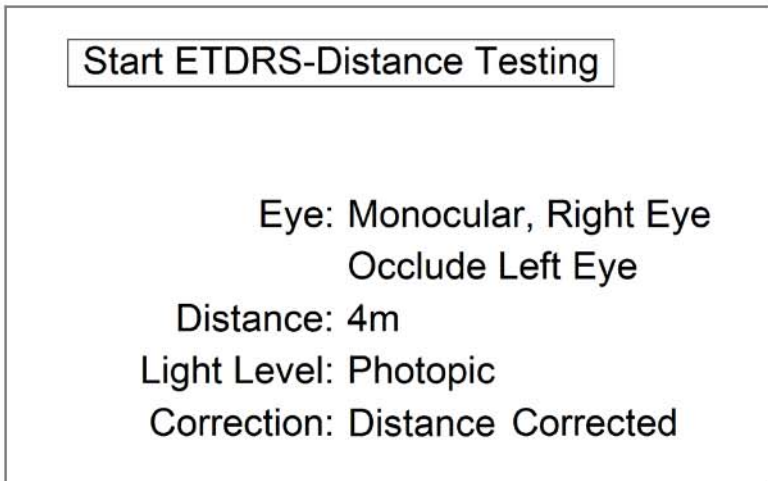
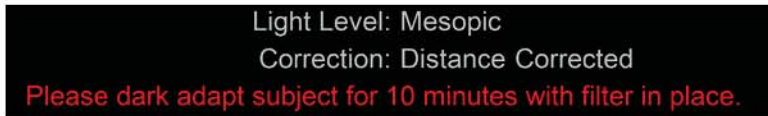
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	<div data-bbox="618 277 1180 655"> <p>Visual Acuity - ETDRS</p> <ul style="list-style-type: none"> <input checked="" type="radio"/> Distance <input type="radio"/> Intermediate <input type="radio"/> Near <input type="radio"/> Refraction <p>Chart <input type="text"/></p> </div> <p>- If acuity is to be measured with low contrast optotypes, select 'Contrast Acuity' under 'Contrast Sensitivity', and ensure '4m' and '10%' are selected in the adjacent dropdown boxes</p> <div data-bbox="587 806 1209 1140"> <p>Contrast Sensitivity <input type="text" value="4m"/></p> <ul style="list-style-type: none"> <input checked="" type="radio"/> Contrast Acuity <input type="radio"/> Threshold Contrast <input type="radio"/> Linear Contrast <input type="radio"/> ACSFS <p><input type="text" value="10%"/></p> </div>
14.	<p>Under 'Eye', select the appropriate option as specified in the protocol.</p> <div data-bbox="613 1201 1185 1648"> <p>Eye</p> <ul style="list-style-type: none"> <input type="radio"/> Right (OD) <input type="radio"/> Left (OS) <input type="radio"/> Binocular (OU) <input type="radio"/> Monocular (OD, OS) <input checked="" type="radio"/> All Three (OD, OS, OU) </div>
15.	<p>Under 'Correction' select 'Distance Corrected' (or other selection if specified in the protocol).</p>


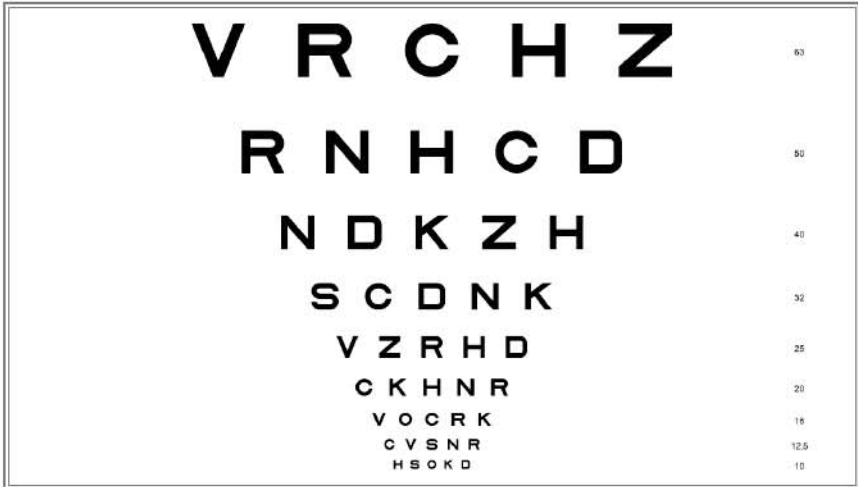
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	<div> <div>Correction</div> <ul style="list-style-type: none"> <input type="radio"/> Uncorrected <input type="radio"/> Best Corrected <input checked="" type="radio"/> Distance Corrected <input type="checkbox"/> Best Distance </div>
16.	<p>Under 'Test Luminance' select 'Photopic' if testing under high luminance, or 'Mesopic' if testing under low luminance.</p> <div> <div>Test Luminance</div> <ul style="list-style-type: none"> <input type="radio"/> Photopic <input checked="" type="radio"/> Mesopic </div>
17.	<p>Under 'Glare Level' ensure 'None' is selected.</p> <div> <div>Glare Level</div> <ul style="list-style-type: none"> <input checked="" type="radio"/> None <input type="radio"/> Low <input type="radio"/> Medium <input type="radio"/> High </div>
18.	<p>Next to 'Subject ID' enter the four digit study number, followed by a period, followed by the subject number e.g. '1234.001'</p>

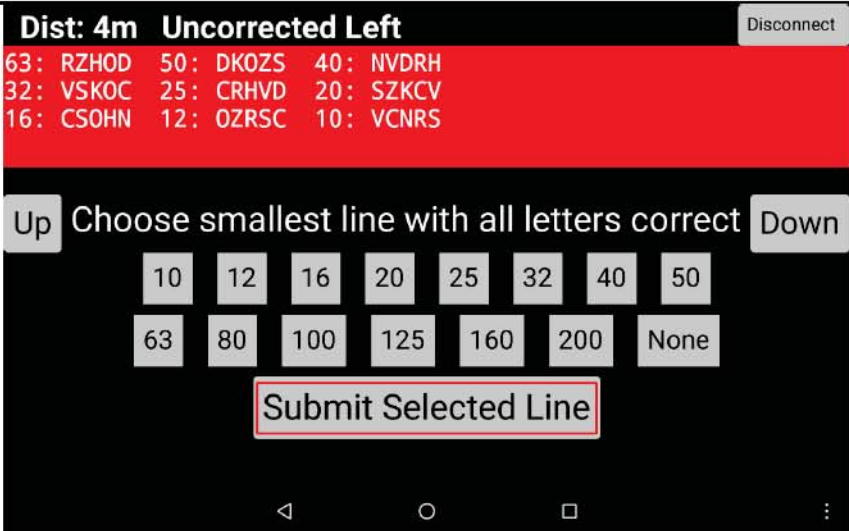
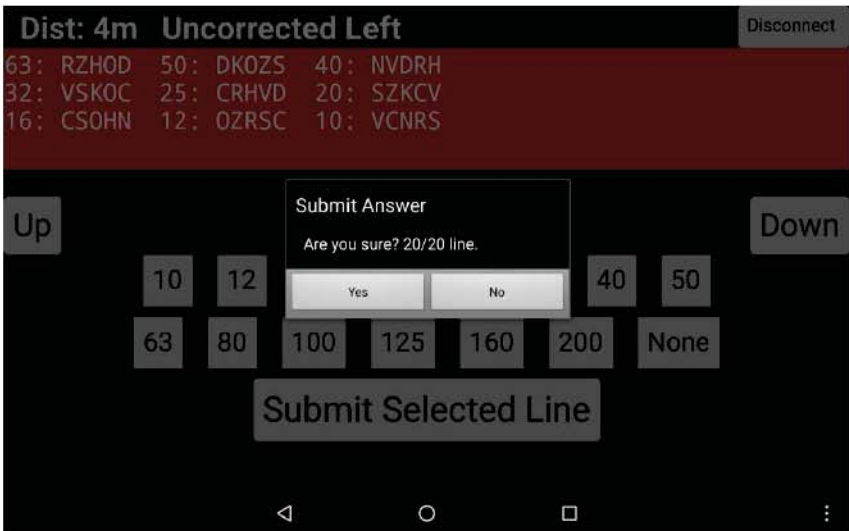
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19.	<p>Double check all settings are entered correctly, then click 'Start Test >>'</p> 
20.	<p>On the laptop screen, the start screen will be displayed with a summary of testing parameters.</p>  <p>NOTE: If testing acuity under low luminance conditions, place the ND filter over the screen and allow the subject to adapt to the lower light level for at least 10 minutes before beginning the test.</p>  <p>On the android screen, tap the 'Start' button to begin testing.</p>

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21.	Position the subject at the correct distance from the monitor. The subject should be directly in front of the monitor (not viewing it at an angle) and with their eyes at 4 meters distance from the center of the screen (or as specified in the protocol).
22.	<p>Ask the subject to read the lowest row of letters they are able to see.</p>  <p>On the android, tap the button corresponding to the lowest line read with all letters correct, then tap 'Submit Selected Line'.</p>

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23.	Confirm you have selected the correct line by tapping 'Yes', or if you made an error tap 'No'.	
24.	On the following screen, have the patient attempt to read all five letters on the row next to the blue dot. If the patient indicates they cannot read a letter, encourage them to guess.	

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K N H C V	20
● N K Z S O	16
R V S K C	12.5
C Z H V R	10

Once the patient has given a response for all five letters on that row, indicate the number of correct responses by tapping the appropriate button on the tablet and then tap 'Submit # Correct'.

Dist: 4m Uncorrected Right
Disconnect

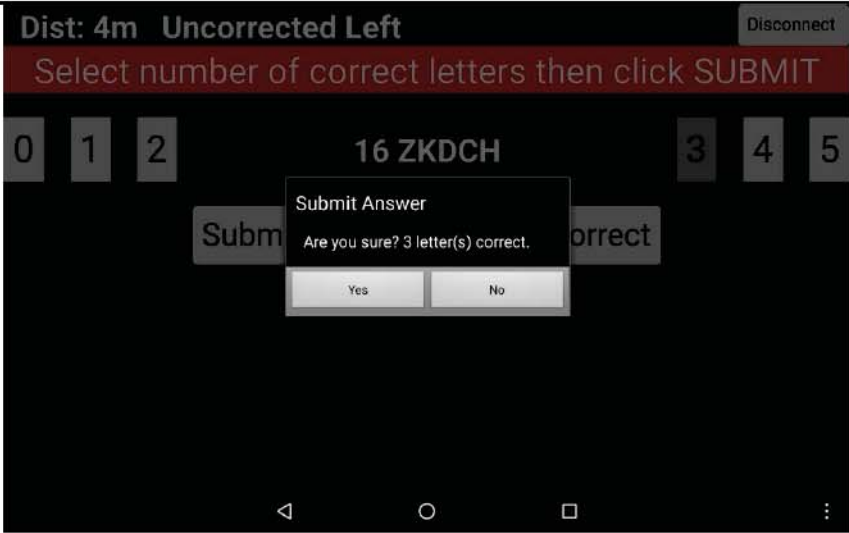
Select number of correct letters then click SUBMIT

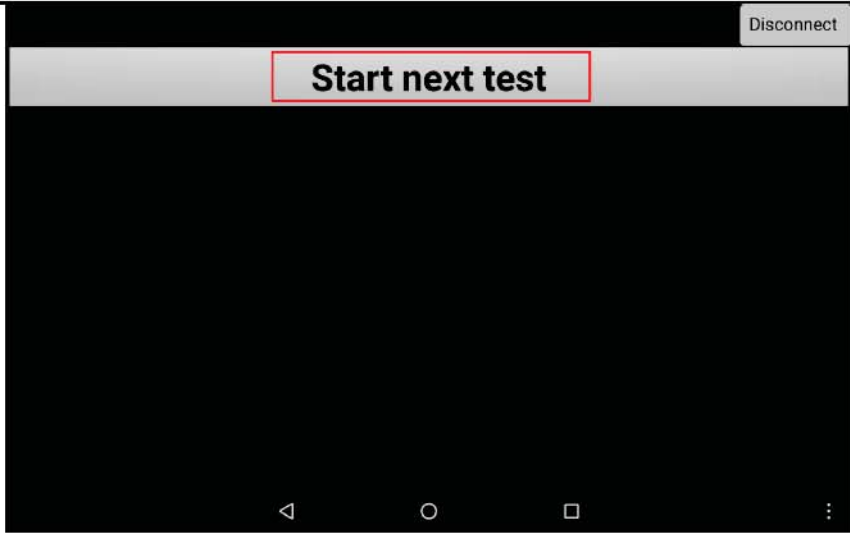
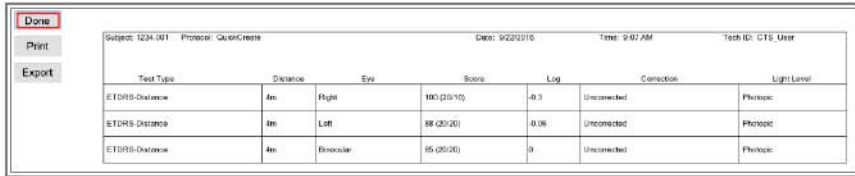
01216 VZHOS345

Submit # CorrectAll Correct

Confirm you have entered the correct number of letters identified by tapping 'Yes', or if you have made an error tap 'No'.

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25.	Continue the previous step until the number of letters correctly identified is 0.
26.	<p>The acuity results will then be summarized for that testing session on the following screen.</p> <div data-bbox="592 953 1192 1484" data-label="Form"> <div>ETDRS-Distance Results</div> <div> <p>Eye: Monocular, Right Eye</p> <p>Occlude Left Eye</p> <p>Distance: 4m</p> <p>Light Level: Photopic</p> <p>Correction: Uncorrected</p> <p>Letter Score: 85</p> <p>Acuity: 20/20</p> <p>Logmar: 0</p> </div> </div> <p>Record the 'Logmar' score into the appropriate section of the electronic case report form.</p>
27.	If there are multiple testing conditions to be done, change the testing conditions (i.e. change the occluded eye or remove occluder) as necessary, then tap 'Start next test' on the android tablet.

	 <p>Repeat the testing procedures described in the previous steps until all testing has been completed.</p>
28.	<p>A final summary screen will display the results from all testing done in that session. Click 'Done' to return to the menu screen.</p> 
29.	<p>The testing procedure may be repeated multiple times, or under multiple conditions, as specified in the study protocol.</p>
30.	<p>To exit the CTS software, click 'Cancel' on the protocol menu screen, then 'Exit' on the main screen.</p> <p>Shut down the computer.</p> <p>Ensure the android tablet is connected to a power outlet when not in use.</p> <p>Ensure both the tablet and ND filter are stored in the soft cases when not in use.</p>

TROUBLESHOOTING If the tablet or glare sources are not functioning correctly, shut down the computer and tablet. Remove the power supply for all components including the glare sources (by unplugging them at the wall power outlet). Plug all components back in, then restart the computer and tablet and follow the directions listed above.

APPENDIX E: WORK AID: INTERBLINK INTERVAL IMAGE CAPTURE

Work Aid: Interblink Interval Image Capture

1 Objective

To provide instructions for capturing images of suitable for processing using custom Matlab code to obtain interblink interval (IBI) lens centration at various down gaze angles using the device shown in Figure 1.

2 Materials

- 2.1 Camera
- 2.2 Tripod
- 2.3 Tripod Clip



Figure 1: shows camera mounted on tripod

3 Procedure

Equipment Setup

- 3.1 Attach tripod clip (TC) to bottom of camera by screwing the clip into the hole on the camera plate. See Figure 2.

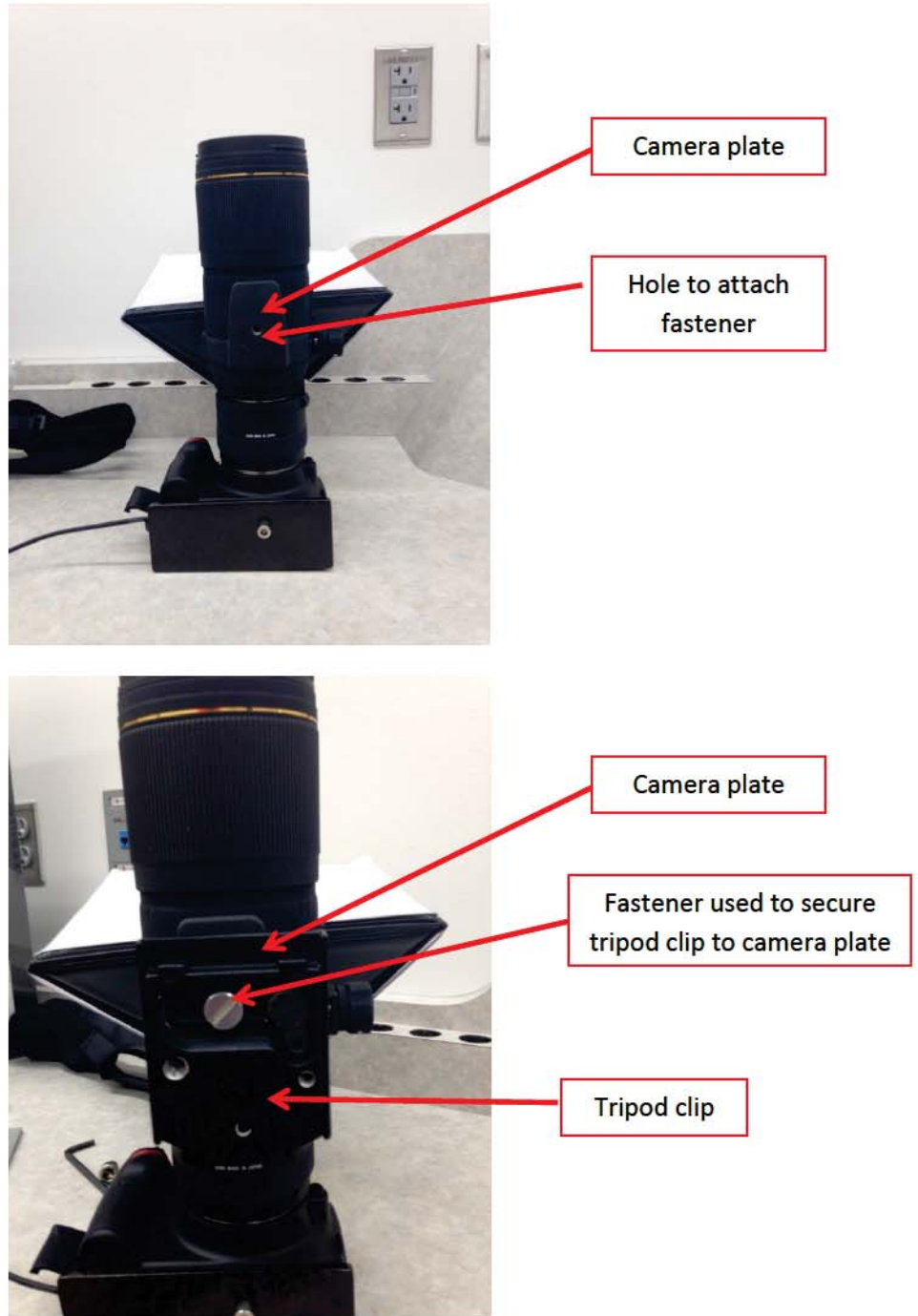


Figure 2: shows attachment of tripod clip to camera plate.

- 3.2 Attach the camera with tripod clip to the tripod by pressing the camera-TC into the tripod plate. See Figure 3. The tripod plate lever should click to the left when this is done.

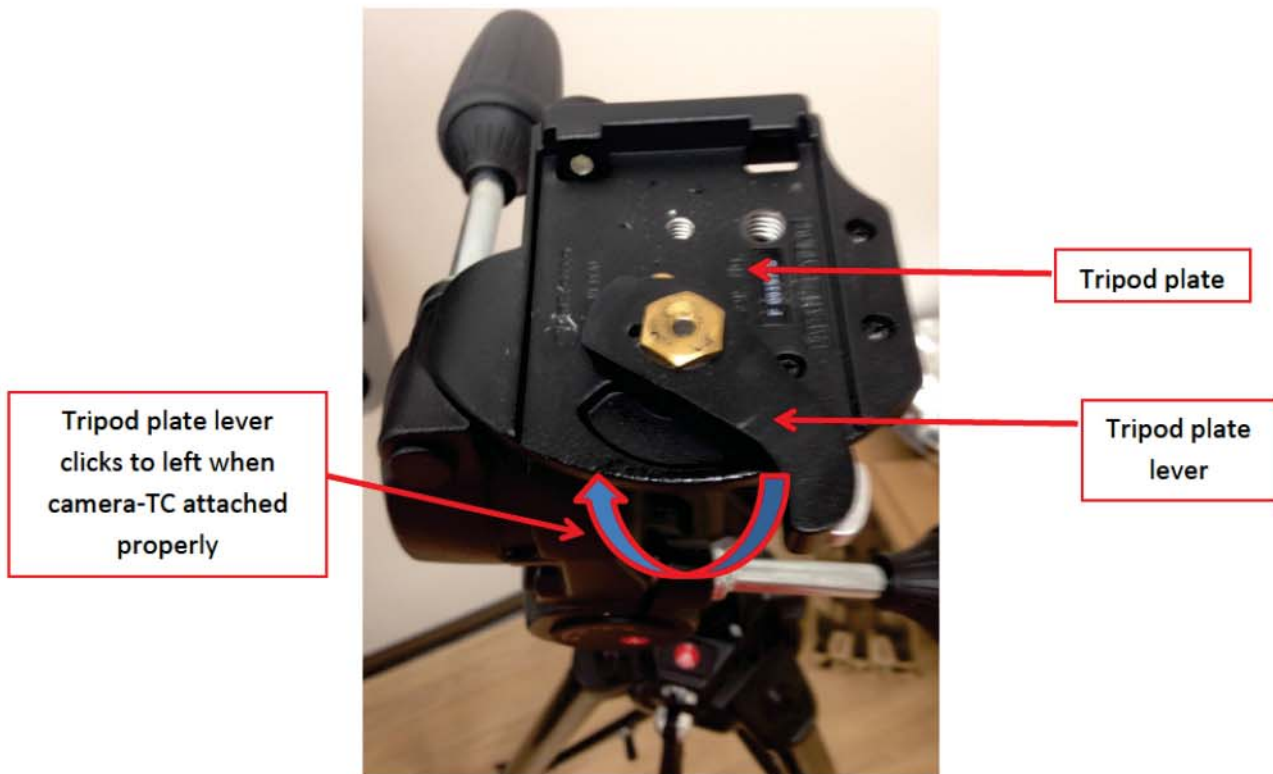


Figure 3: Shows tripod plate with tripod plate lever.

- 3.3 Ensure that the camera is in manual mode. See Figure 4.

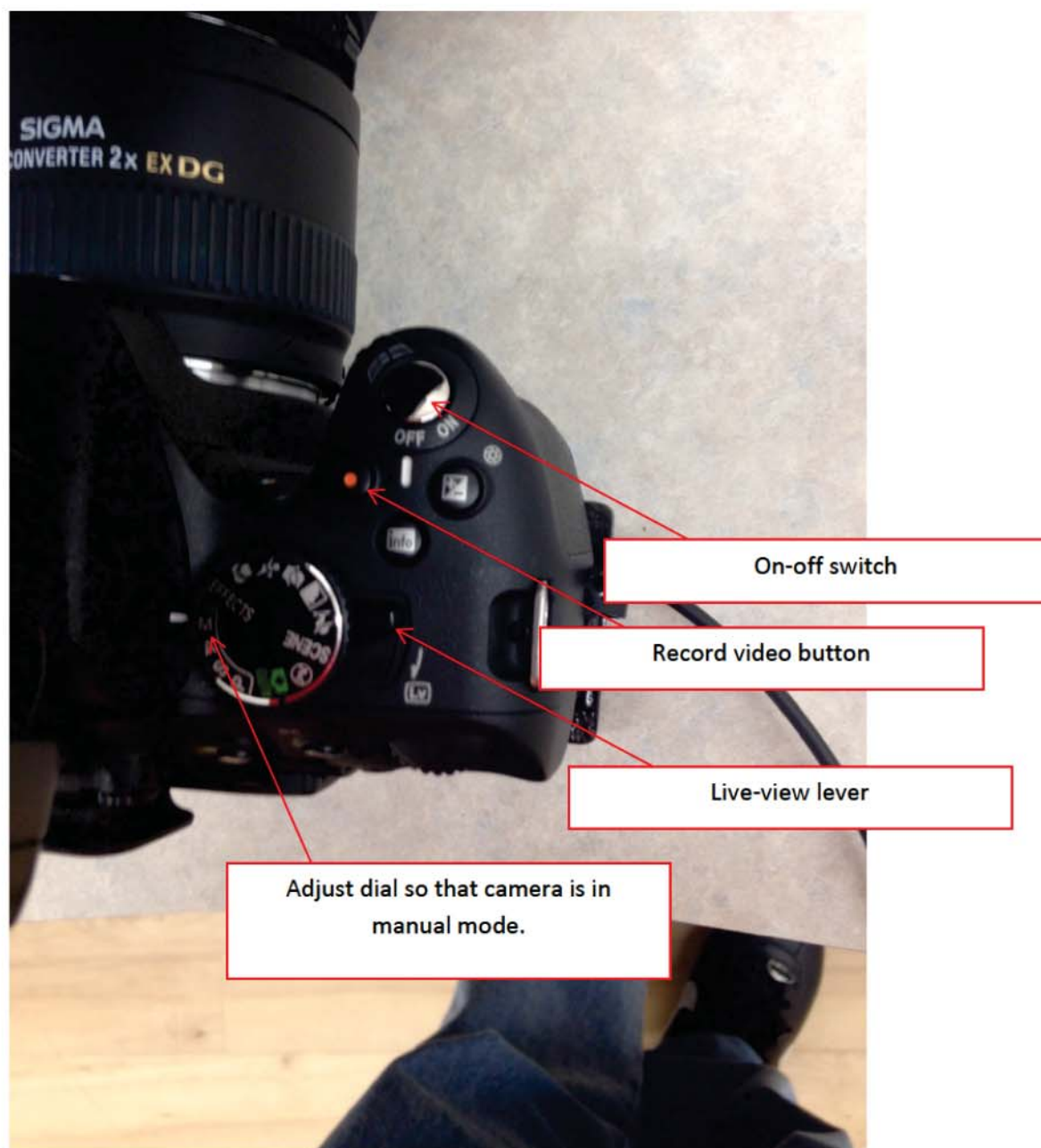


Figure 4: shows camera controls

Data Gathering

- 3.4 Seat the subject in a chair and position the tripod and camera so that one of the subject's eyes take up most of the camera's field of view. This is typically about 25 cm.
- 3.5 Adjust camera so that the live image is on the LCD screen. To get into the live image mode use the live image lever; see Figure 4.
- 3.6 Ensure the subject's eye is in focus. Change the focus by adjusting the barrel of the lens. See Figure 5.



Figure 5: shows barrel of camera lens

- 3.7 Provide the subject with instructions on whether to blink naturally or according to instructions. This depends on the particular protocol.
- 3.8 Press the record button to capture a video. Press the button again to stop the recording. Record the video for the time period prescribed in the protocol.

APPENDIX F: WORK AID: QCSF CONTRAST SENSITIVITY

Work Aid: qCSF Contrast Sensitivity

1 Objective

To provide instructions for capturing contrast sensitivity data using the AST Sentio Pro Instrument.

2 Description

The AST Sentio is a vision testing system that consists of a monitor, internal computer, custom software, and remote control for registering user responses. The display, computer, and software are contained in one unit; the remote is separate. During testing, the monitor will show test patterns of varying sizes and contrasts. The particular pattern that is displayed during the test is determined by the custom software. During a test session, 25 or 50 triplets of test letters will be displayed and the operator will record the patient's responses using the remote. After a test session is complete, the custom software will calculate the following.

- Area under the log contrast sensitivity function from 1.5 cycles per degree to 18 cycles per degree output of a testing session. This metric is referred to as the AULCSF.
- The highest spatial frequency at which a stimulus at full contrast is visible. This is equivalent to the intersection of the CSF curve and the X-axis. This metric is referred to as CSF Acuity.
- The log Contrast Sensitivity at 1.5, 3.0, 6.0, 12.0 and 18.0 cpd.

3 Materials

3.1 AST Sentio Pro Monitor display with internal computer (see Figure 1).

3.2 AST Sentio Remote (see Figure 1).



Figure 1: AST Sentio Pro Monitor (main unit) and Remote. The monitor has a USB port for data export. To start the remote, press the On/O button once. When the remote is on, to put the device into a hold mode, press the On/O button. The remote has a micro-USB port for charging.

4 Setup

- 4.1 The viewing distance for the AST Sentio Pro (ASP) instrument is 4 meters. This *cannot* be changed during the protocol.
- 4.2 Place the ASP so that no light sources create glare on the screen. Ensure no direct light sources are in the patient's field of view when the patient is facing the screen.
- 4.3 Plug the monitor into an AC 110V 50/60Hz grounded outlet. Do not use an extension cord.
- 4.4 Ensure that the remote is charged. The remote has a micro-USB port for charging. When charging the remote, use a different AC outlet from the one that is being used for the monitor.
- 4.5 To start the remote, press the On/O button once. This will also start the main unit. When the remote is on, to put the device into a hold mode, press the On/O button.
- 4.6 Press [Settings] on the Main Screen to switch settings (see Figure 2).
- 4.7 Set the number of trials (either 25 or 50) using the [Number of Trials] slider in the Settings screen (see figure 2).

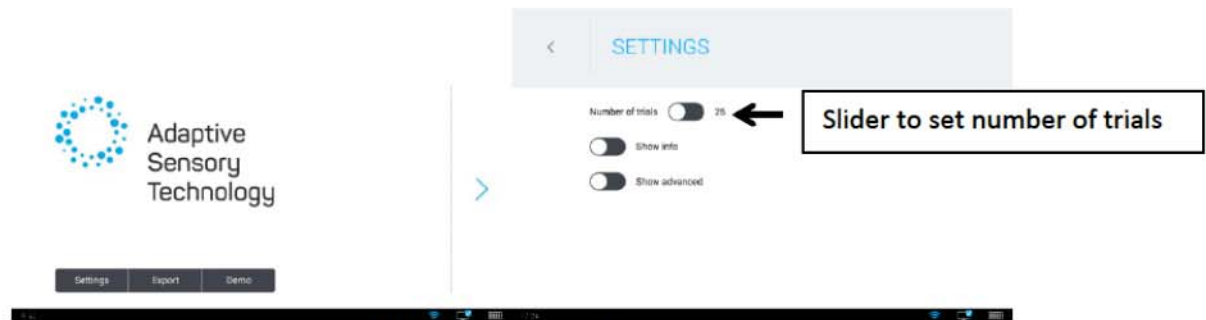


Figure 2: Main screen and settings screen.

- 4.8 Using the [Show Info] button will display the following information
 - 4.8.1 Software revision (computer and remote).
 - 4.8.2 Battery charge state (percentage of full charge).
 - 4.8.3 Wi-Fi signal strength and name of Wi-Fi network.
 - 4.8.4 Connection status to computer.
 - 4.8.5 Connection status to monitor.
 - 4.8.6 MAC address of computer adapter.
 - 4.8.7 Percentage of storage space (hard drive) in computer.

5 Testing

- 5.1 Ensure that the remote is charged.
- 5.2 Ensure that the subject is positioned at the proper viewing distance (4 meters).
- 5.3 Ensure the subject's eyes, in primary gaze, are at 130 cm \pm 10 cm from the ground.
- 5.4 Ensure that there is no glare on the screen or in the subject's field of view.
- 5.5 Instruct the subject as follows.
 - 5.5.1 Inform the subject that they will be presented with letters of different sizes and contrast (faintness) on the monitor. These letters may not have a familiar appearance; they may be modified for testing purposes.
 - 5.5.2 Inform the subject that they will be shown a short demonstration to familiarize them with the letters and procedure.
 - 5.5.3 Inform the subject that they will encounter letters that they will not be able to identify or see and this is not an indication of poor visual performance. The purpose of the test is to find the limits of visual performance.
 - 5.5.4 Inform the subject that if the subject is unsure about a letter, they should still respond. If this happens during the test, encourage the subject to respond.
- 5.6 Start the system by pressing the On/O button on the remote. The two screens in Figure 3 should be visible (one following the other).

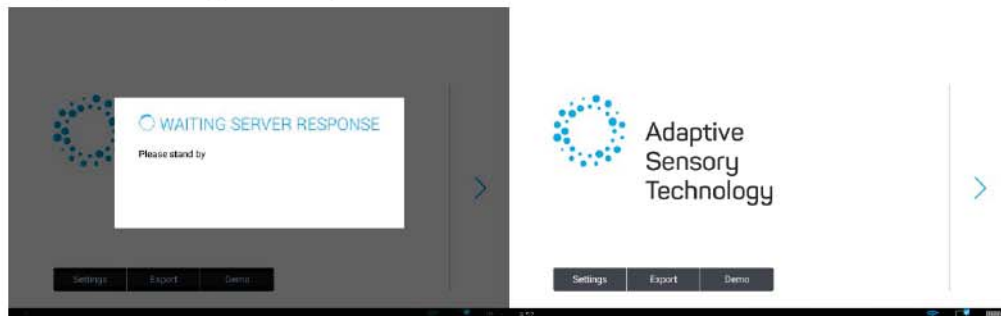
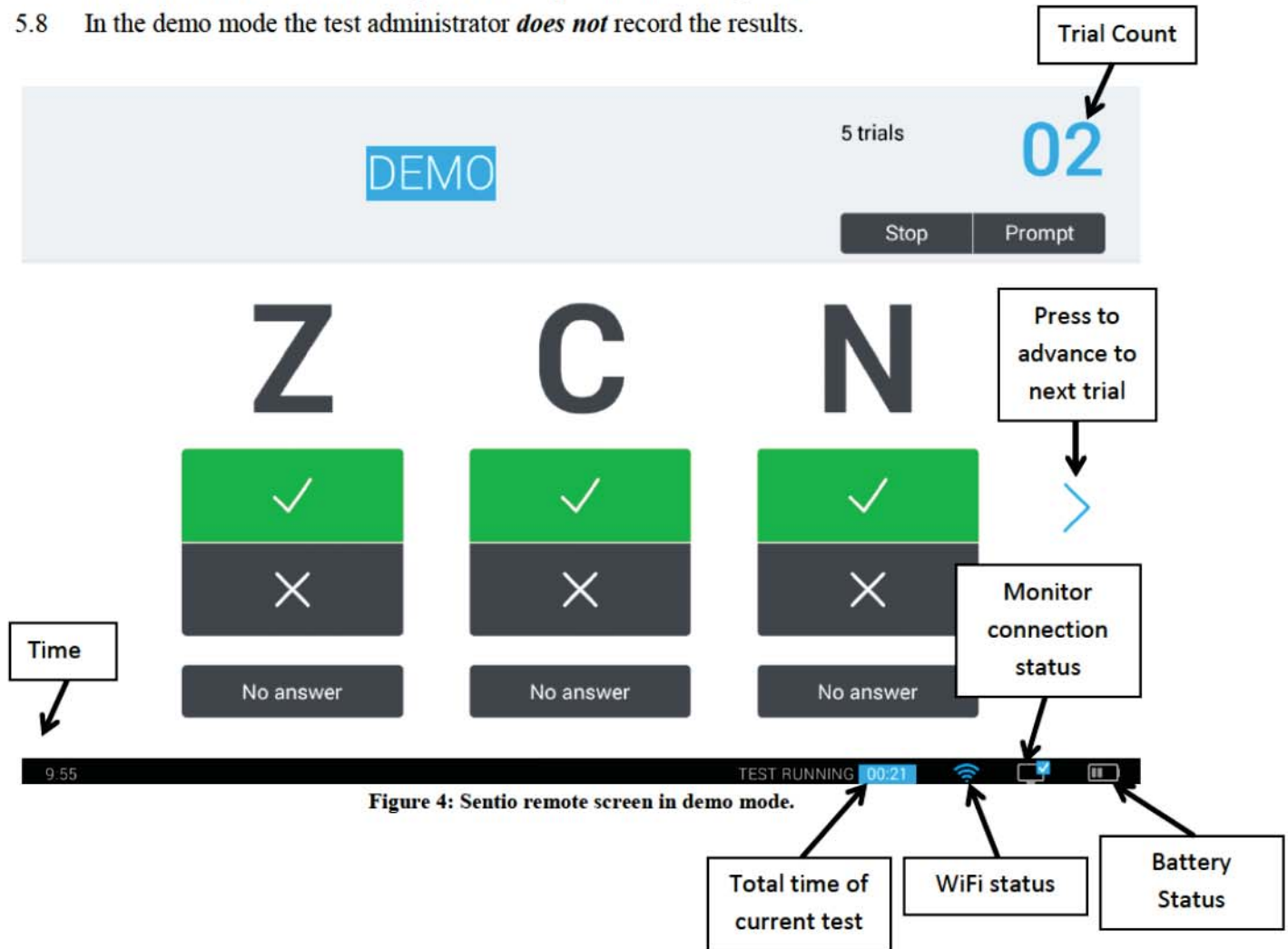


Figure 3: After pressing the On/O button the system will power up and the Sentio remote will connect to the computer software. The screen on the left will be visible on the Sentio remote while the remote is attempting to connect. After the connection is made, the screen (Main Screen) will appear on the Sentio remote.

- 5.7 The **demo mode** can be accessed by pressing the “Demo” button on the main screen (see Figure 3). In the demo mode a screen as shown in Figure 4 will displayed on the Sentio remote. To advance to the next trial press the “>” symbol (see Figure 4). A total of 5 trials can be viewed in the demo mode. The system will return to the main screen once the last demo trial has been viewed. To stop the demo before the fifth trial, press the “stop” button (see Figure 4).
- 5.8 In the demo mode the test administrator *does not* record the results.



- 5.9 To start a test, press the “>” button on the main screen. This will advance to the setup screen on the Sentio Remote (see Figure 5).



Figure 5: left image shows main screen; right image shows setup screen

- 5.10 Using the setup screen on the Sentio Remote, enter the subject ID (see protocol governing test).
- 5.11 Choose the appropriate eye (OD or OS) or both eyes (OU). See protocol governing test.
- 5.12 Press the “>” button to start the test.
- 5.13 When the test is started, the monitor will show three letters with decreasing (left to right) visibility. The Sentio remote will show the correct identity of these letters. **Be certain that the subject cannot see the Sentio remote screen.**
- 5.14 Record the subject response as either correct (check mark) or incorrect (X). See Figure 6. Encourage the subject to name a letter; however, if the subject will not name a letter, record “no answer”.
- 5.15 If the subject cannot see which letter is under consideration, or any letter, the test administrator can highlight the area containing the letter by pressing the prompt button (see Figure 6).
- 5.16 Press the “>” button to advance to the next trial. See Figure 6.

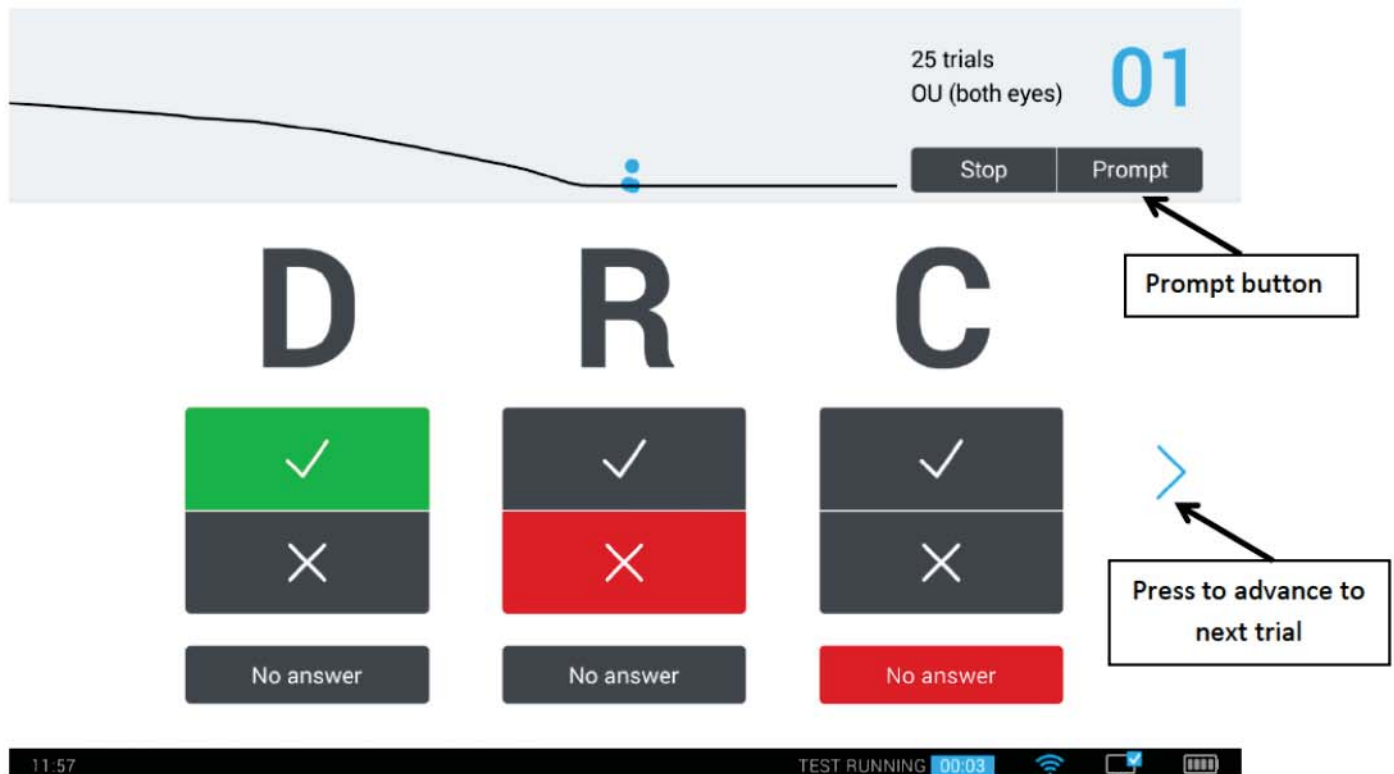


Figure 6: Sentio Remote screen in Test mode. The check box indicates a correct response (under letter D); the X indicates an incorrect response (under the letter R); and “no answer” indicates the subject would not offer a response (under the letter C). The prompt button is located at the top right under the number 01.

- 5.17 The “<” button acts as a back button and can be used if the test administrator incorrectly recorded a response. Note: in Figure 6, this button is not visible since it shows trial 1.
- 5.18 To abort the current test, press the “stop” button (next to the prompt button). A window will appear to confirm that the test is to be aborted.
- 5.19 After a set number of trials, pressing the “>” button will advance to the Results screen. See Figure 7.
- 5.20 Record the results of AULCSF, CSF Acuity and the sensitivity at each of the five spatial frequencies (1.5, 3.0, 6.0, 12.0 and 18.0 cpd) in the Case Report Form.

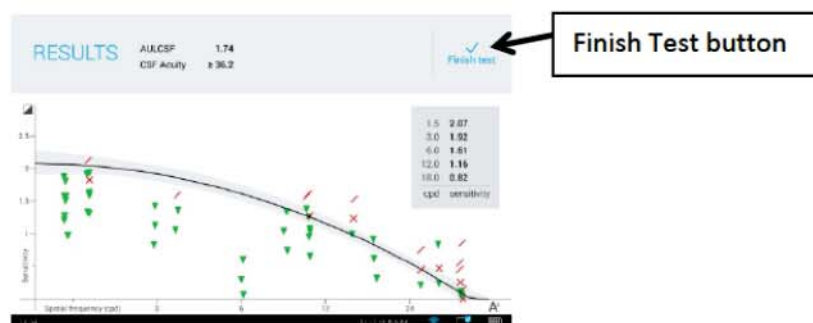


Figure 7: results screen shown on Sentio remote. The green triangles denote a correct response, the red crosses denote an incorrect response, and the red slashes denote that no answer was given. The top of the screen displays the AULCSF and CSF acuity metrics.

- 5.21 Press the “Finish Test” button on the top right of the results screen (see Figure 7). After this is done a dialog box will appear (see Figure 8).

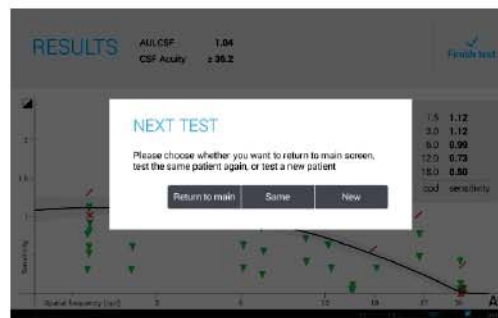


Figure 8: dialog box that will appear after pressing the “Finish Test” button on the results screen

- 5.22 To finish the test, press the “return to main” button in the dialog box (see Figure 8).
- 5.23 To start a new test with the same subject, press the “Same” button (see Figure 8).
- 5.24 To start a new test with a new subject, press the “New” button (see Figure 8).

6 Following a Test

6.1 Exportation of Data

- 6.1.1 Press the “Return to Main” button. See 5.22.
- 6.1.2 All data are stored on the computer’s hard drive and exportation of data may occur at any time. To export the data, insert a AST provided USB drive into the USB port on the front column of the cart.
- 6.1.3 At the main screen on the Sentio remote, click the export data button. You will be prompted with a dialog box asking to create a password. This is the password used for extracting the data from the USB drive.
- 6.1.4 After creating a password, press either “Export New”, which will export the last data set, or press “Export All”, which will export all subject data. Two files will be exported: a PDF and a JAVA file; each contains the data shown on the results screen.

6.2 Continue Testing

- 6.2.1 Press either the “Same” or “New” buttons. See 5.23 and 5.24.

6.3 Power Down

- 6.3.1 To turn the device off, press the On/O button on the Sentio remote. The monitor will count down for 10 seconds before powering down. If you wish to stop this, press the On/O button again; this will stop the device from powering down.
- 6.3.2 The device will power down if left inactive for some period of time. To restart the device, press the On/O button. Ongoing test results will be saved.
- 6.3.3 **Do not unplug the device during testing; data for an ongoing test will not be saved.**

7 References

- 7.1 AST Sentio Pro Instructions for Use. Software version 1.1. IFU version 2016-08-07.

APPENDIX G: WORK AID: TEAR SURFACE IMAGE CAPTURE

Work Aid: Tear Surface Image Capture

1 Objective

To provide instructions for capturing images of in-vivo tear film surfaces.

2 Materials

- 2.1 In-vivo Tear Interferometer
- 2.2 Vista Naps wipes.



Figure 1: tear surface interferometer

3 Procedure

Setup

- 3.1 Show the subject the video of the TSI fixation target. Instruct the subject that floaters will be visible; stay fixated on target as best as possible.
- 3.2 Instruct subject they may keep the eye that is not being examined open or closed; whatever is most comfortable for them.
- 3.3 Clean the chin and headrest using Vista Naps.
- 3.4 Instruct subject to adjust chin rest so that they can comfortably align their eye to the center of the objective lens. Adjust the table height as needed. See Figure 2.
- 3.5 Adjust head rest so that the subject's forehead can press against the head rest pad. See Figure 2.
- 3.6 Show subject fixation target and ask if they can identify the target.
- 3.7 Sit back and rest for 1 minute, or longer.

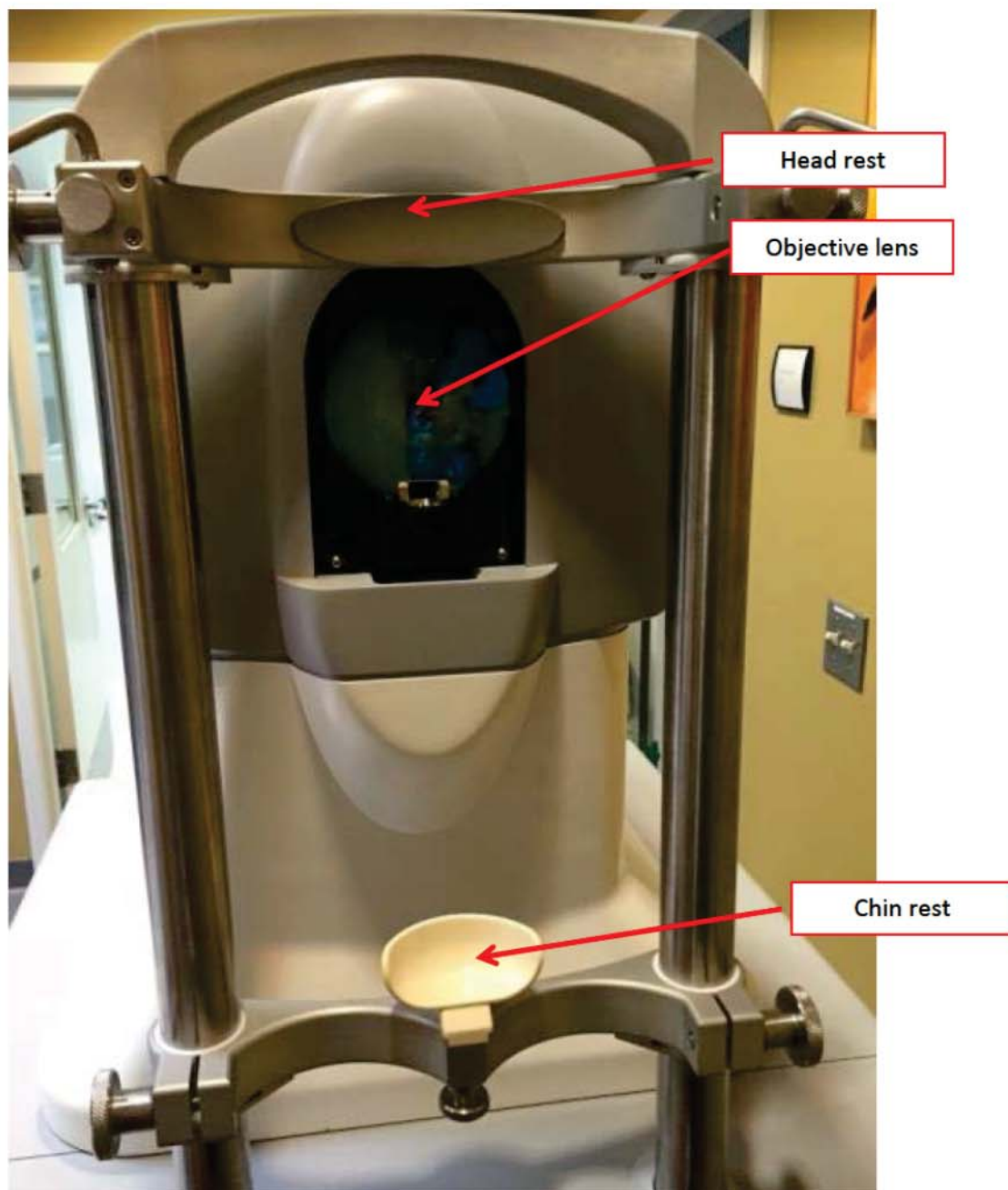


Figure 2: TSI interface for subject

Program Startup and Description

Camera Controls

It is only necessary to perform the following task once upon startup of the computer/laser controller. If no modifications are required to the parameters, opening 4Sight and then closing is sufficient for setting the parameters.

- 3.8 Login to the computer (Password: TFI)
- 3.9 Open 4Sight
- 3.10 In Camera Parameters set the appropriate Exposure and Gain to get high contrast non-saturated fringes from a test asphere.
- 3.11 Save the setting for future runs.

The following default camera settings have been set for human eye imaging.

Exposure: 0.164 milliseconds

Gain: 4

Opening and running the TFI program in Matlab

- 3.12 Open Matlab
- 3.13 Open TFIMain.m shortcut from the desktop. If programs were left unclosed in Matlab from previous session, opening Matlab itself should be sufficient to bring up TFIMain.m
- 3.14 Verify that both 4Sight and 'XiViewer' programs are closed and not trying to use camera resources.
- 3.15 Press F5 or the 'Run' button to execute the program and wait for the GUI to initialize. May take 20-30 seconds. Follow the text in the command window for status indicators.

Main Panel

Upon startup, the 'Main' panel is the initial active panel in default 'online' mode (Figure 3).

The 'Main' panel is split into 2 subpanels: 'Video Panel' (left) and 'Instrument Control' (right) as indicated by their headings.

The 'Video Panel', on the left side of the 'Main' tab, contains all video and patient data entry information for capturing movies. Two live video feeds are continuously running while in the 'Main' tab: 'EyeCam' (left) and 'PhaseCam' (right).

- 3.16 Enter the appropriate subject data (see Figure 3).
- 3.17 Set the number of frames to 150.

Image Capture



Figure 3: main panel.

Coarse Alignment

- 3.18 Using the EyeCam window and joystick, find the unfocused laser image on the iris. The laser image will show as a fuzzy white. See further Figure 4.

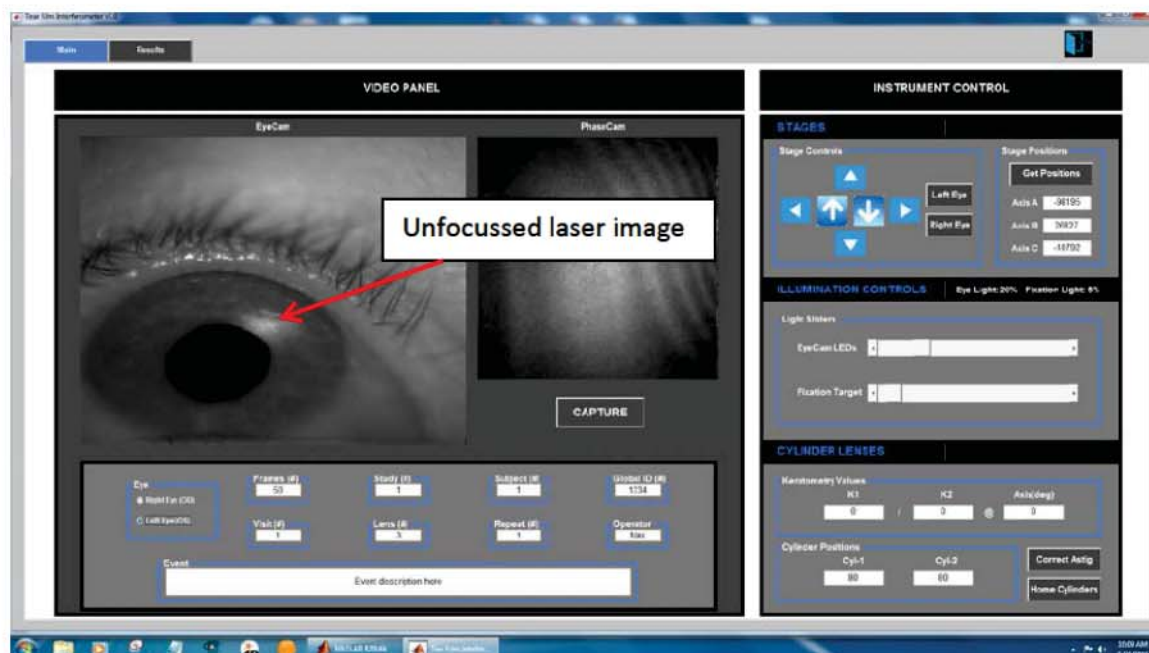


Figure 4: finding the laser image on the iris. The laser image is the white fuzzy patch.

3.19 Using the joy stick, align the vertical dimension of the unfocused laser image to the center of the pupil. See Figure 5.

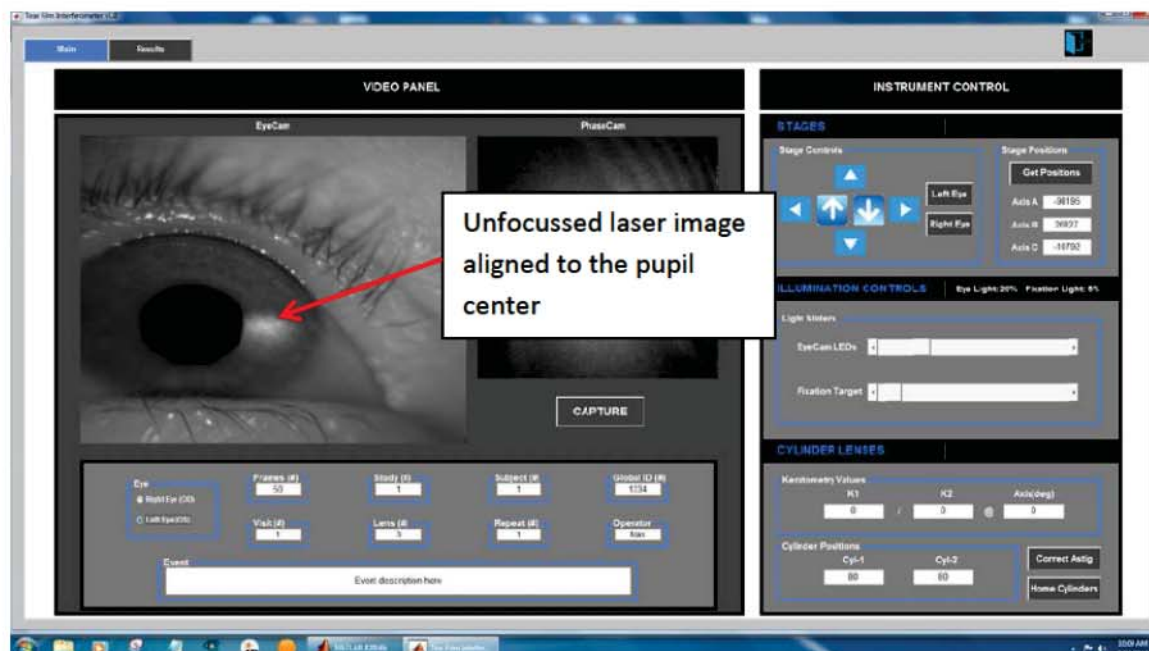


Figure 5: unfocused laser image aligned to pupil center

3.20 Using the joystick (rotate joystick knob) focus the laser image. See Figure 6.

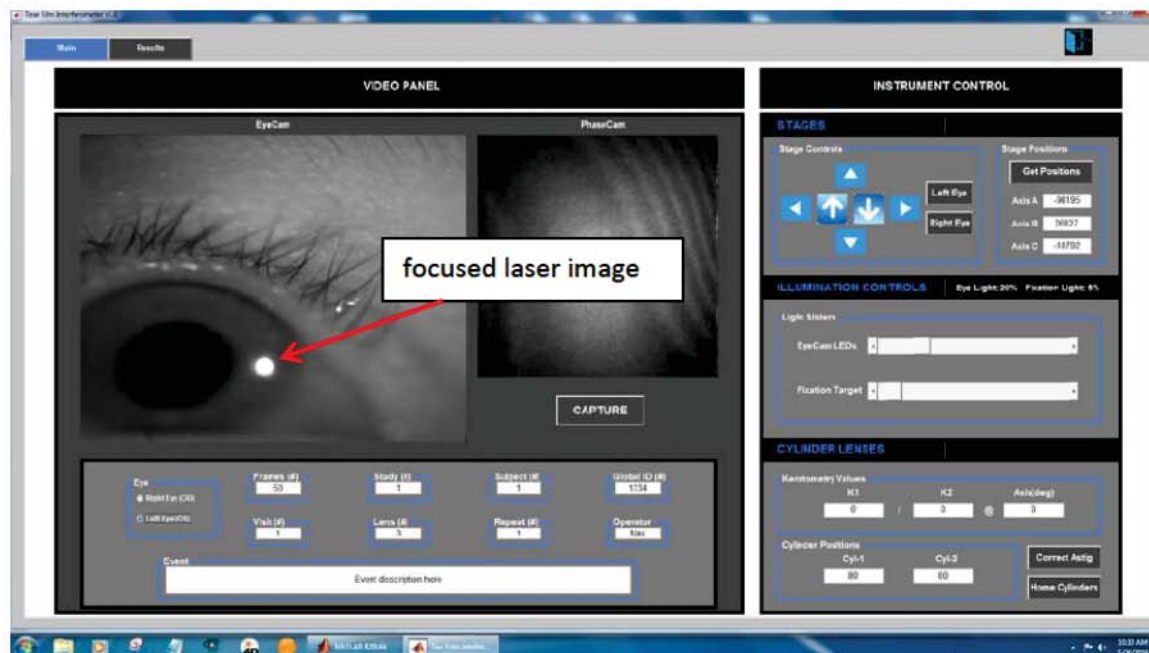


Figure 6: focused laser image aligned with pupil center

Final Alignment

3.21 Using the joystick, move the focused laser image to the pupil center. When this occurs an aliasing interference pattern will appear in the PhaseCam window. See Figure 7.

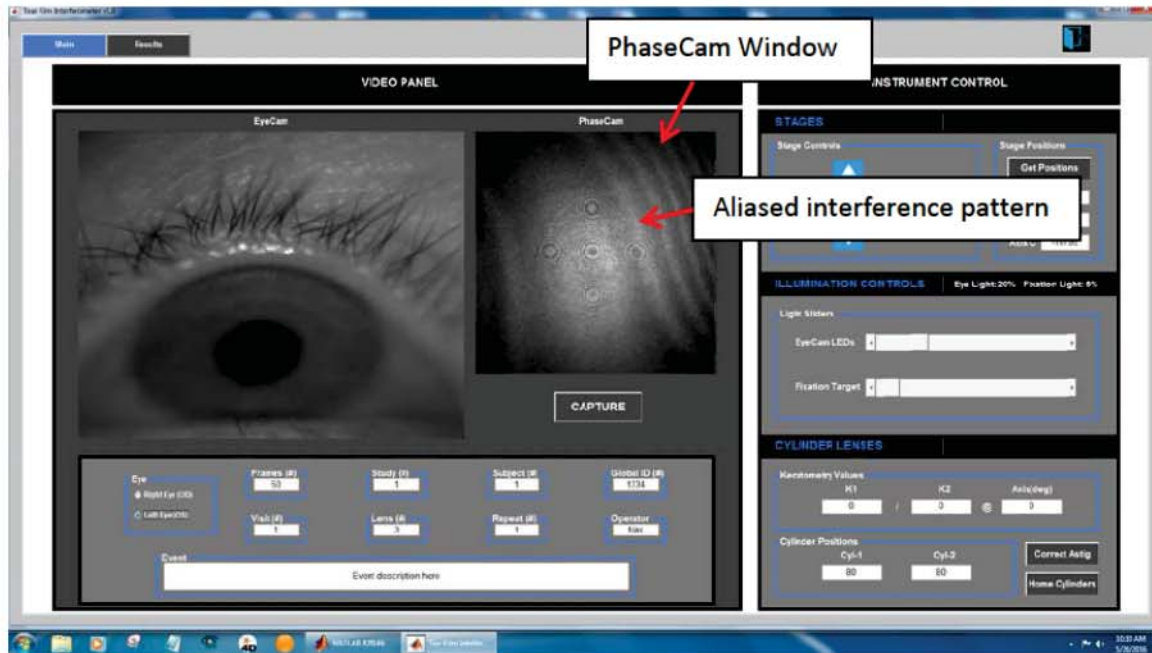


Figure 7: focused laser image aligned with pupil (image cannot be detected). To ensure that this has occurred, look for the aliased interference pattern in the PhaseCam window.

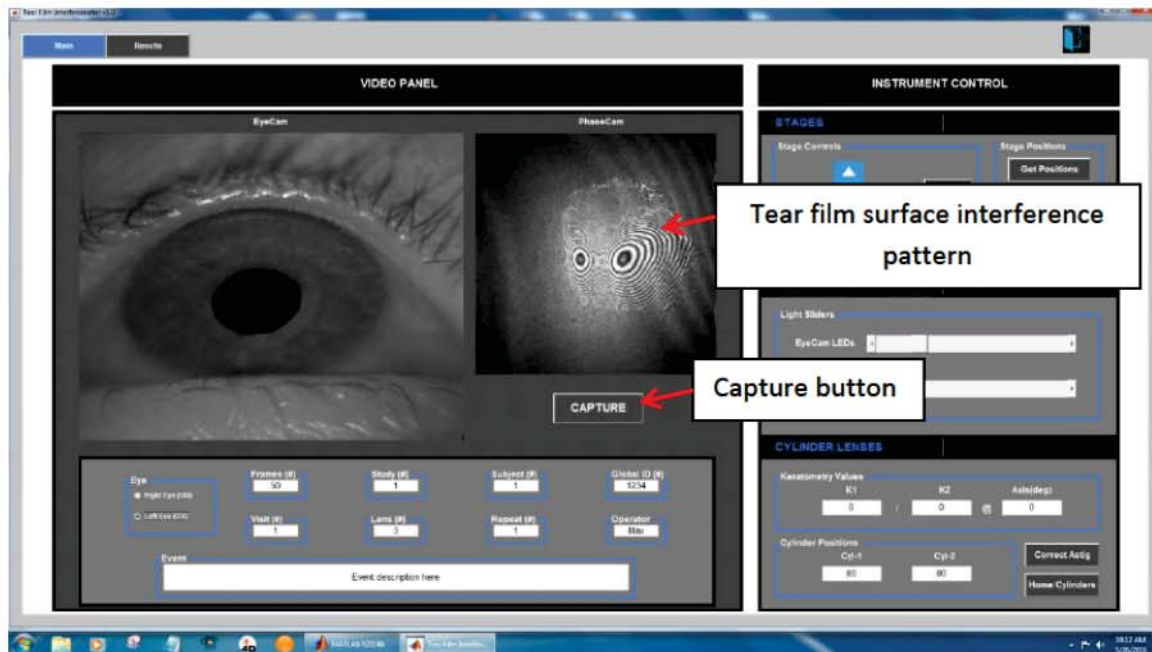


Figure 8: interference pattern of in-vivo tear film surface

- 3.22 Using the joystick, adjust the focus until an interference pattern as shown in Figure 8 appears. If the focus is moving in the wrong direction an interference pattern as shown in Figure 9 will appear.



Figure 9: interference pattern that will be visible if focus is adjusted in the wrong direction

- 3.23 Instruct the subject to blink and press the capture button. See Figure 8.
- 3.24 After the capture is complete, instruct the subject to sit back.

APPENDIX H: WORK AID: EFRON GRADING SCALE GUIDELINE

Efron Grading Scales for Contact Lens Complications

INSTRUCTIONS FOR USE

Background

As an aid to accurate record keeping, health care practitioners of all disciplines often resort to the use of standardized grading scales of various conditions. The enclosed artist-rendered grading scales have been designed to provide a simple, convenient and accurate means by which clinicians can record and communicate the severity of complications of contact lens wear. The advantage of using painted (versus photographic) grading scales is that greater clarity can be achieved because the precise level of severity can be depicted, all other factors can be kept constant, potentially confounding artifacts can be avoided, and artistic licence can be adopted. The grading assigned to a particular condition can serve as a reference against which any future tissue change may be assessed, and can therefore influence clinical decision-making. These grading scales may act as a standard clinical reference for describing the severity of contact lens complications.

Grading Scale Design

The primary design criteria are simplicity, convenience and ease of use by clinicians. Eight sets of grading images are depicted on each side of the enclosed card; these cover virtually all anterior ocular complications of contact lens wear. Those shown on the side beginning with 'conjunctival redness' are frequently encountered; those on the reverse side are less common and thus less likely to be graded routinely. On each side, complications are depicted in the approximate order that they would be encountered in the course of a typical slit lamp examination of the eye. Each complication is illustrated in five stages of increasing severity from 0 to 4, with 'traffic light' color banding from green (normal) to red (severe). The severity of the complications is based on an appraisal of accumulated evidence in the literature and clinical experience.

Image Size

Each complication has been painted to an equivalent level of magnification that addresses the compromise between a) being large enough to depict the key features of the tissue changes, and b) being low enough to relate to what practitioners can observe with available clinical techniques. The approximate magnification of each complication (relative to a whole cornea depicted as X1) is given in the following table:

COMPLICATION	MAGNIFICATION
Conjunctival redness	X2
Limbal redness	X3
Corneal neovascularisation	X1
Epithelial microcysts	X100
Corneal edema	X40
Corneal staining	X1
Conjunctival staining	X2
Papillary conjunctivitis	X1
Blepharitis	X3
Meibomian gland dysfunction	X3
Superior limbic keratoconjunctivitis	X2
Corneal infiltrates	X1
Corneal ulcer	X1
Endothelial polymegethism	X600
Endothelial blebs	X200
Corneal distortion	X3

A consequence of these magnification levels is that, although epithelial microcysts and endothelial blebs can be detected and graded at X40 magnification on a slit lamp biomicroscope, they will not be viewed at the resolution depicted. Furthermore, endothelial polymegethism can only be assessed with the aid of an endothelial microscope. All other complications can be viewed at the resolution depicted and are capable of being graded by direct observation and/or using a slit lamp biomicroscope up to X40 magnification.

How to Grade

Observe the tissue change of interest directly or with the aid of a slit lamp biomicroscope under low and/or high magnification as required and estimate the grading to the nearest 0.1 scale unit. For example, a tissue change that is judged to be considerably more severe than Grade 2, but not quite as severe as Grade 3, may be assigned a grade of 2.8 or 2.9. Although this procedure can sometimes be difficult, grading to the nearest 0.1 scale unit (rather than simply assigning a whole digit grade of 0, 1, 2, 3 or 4) affords much greater precision and increases the sensitivity of the grading scale for detecting real changes or differences in severity.

How to Record Grading

Various grading scales are becoming available, so it is important to clearly designate the grading system used and the specific tissue change being graded. A more expedient approach would be to print or stamp the 16 tissue changes onto a record card, each with an accompanying box, for entering the assigned grade. It may be necessary to add additional annotations to more fully describe the condition, for example to indicate the location of the pathology.

How to Interpret Grading

The 0 to 4 grading scale adopted here is based on a universally-accepted concept whereby a higher numeric grade denotes greater clinical severity. This schema can be applied to any tissue change. The general interpretation of each grading step is shown in the table below; it must be recognized that these are only very general guidelines, and are not intended to replace sound professional judgement.

GRADE	SEVERITY	COLOR	CLINICAL INTERPRETATION
0	Normal	Green	Clinical action not required
1	Trace	Lime	Clinical action rarely required
2	Mild	Yellow	Clinical action may be required
3	Moderate	Orange	Clinical action usually required
4	Severe	Red	Clinical action certainly required

There are two exceptions with respect to the above interpretation. Corneal ulceration may require urgent action when detected or even suspected at any level of severity. Endothelial blebs require no clinical action even at Grade 4. In general, a level of severity of more than Grade 2, or a change or difference of more than 0.7 grading scale units, is considered to be clinically significant.

How to Obtain Further Information

A comprehensive account of the contact lens complications depicted in these grading scales, as well as more a detailed description of the clinical application of these grading scales, grading movie morphs, and a self-help grading tutor, can be found in the following textbook:

Efron, N. *Contact Lens Complications. 2nd Edition Butterworth-Heinemann, Edinburgh, 2004.* [ISBN 0-7506-5534-8].

How to Obtain Grading Scales

Efron Grading Scales are available without charge as part of a professional and educational service program from Johnson & Johnson Vision Care. Contact us at: theinstitute@vcius.jnj.com.

How to Contact Professor Nathan Efron

Write to Professor Nathan Efron, JHRC, QUT, 60 Musk Avenue, Kelvin Grove, Queensland 4059, Australia, or e-mail: n.efron@qut.edu.au

Efron Grading Scales for Contact Lens Complications

0 - NORMAL

1 - TRACE

2 - MILD

3 - MODERATE

4 - SEVERE

CONJUNCTIVAL REDNESS



LIMBAL REDNESS



CORNEAL NEOVASCULARISATION



EPITHELIAL MICROCYSTS



CORNEAL EDEMA



CORNEAL STAINING



CONJUNCTIVAL STAINING



PAPILLARY CONJUNCTIVITIS



IMPORTANT NOTE: This grading scale, along with the instructions for use, were developed by Professor Nathan Efron. The grading scale is offered as an educational tool that you may choose to use as part of your patient evaluations. These materials are not intended as, and do not constitute, medical or optometric advice.



**THE VISION CARE
INSTITUTE™, LLC**
a Johnson & Johnson company

Efron Grading Scales for Contact Lens Complications

0 - NORMAL

1 - TRACE

2 - MILD

3 - MODERATE

4 - SEVERE

BLEPHARITIS



MEIBOMIAN GLAND DYSFUNCTION



SUPERIOR LIMBIC KERATOCONJUNCTIVITIS



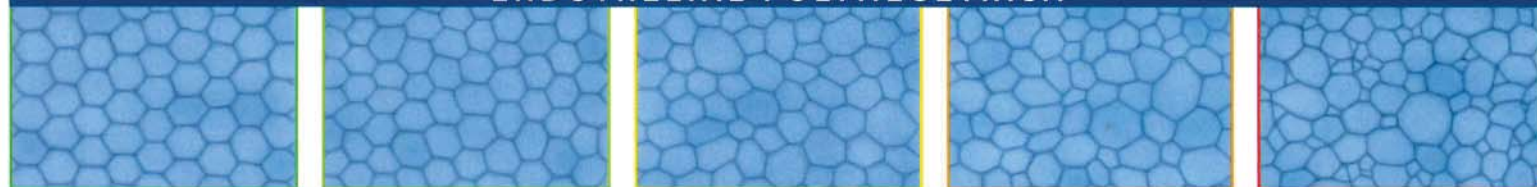
CORNEAL INFILTRATES



CORNEAL ULCER



ENDOTHELIAL POLYMEGETHISM



ENDOTHELIAL BLEBS



CORNEAL DISTORTION



APPENDIX I: [REDACTED]

[REDACTED] LENS FITTING CHARACTERISTICS

[REDACTED] DETERMINATION OF DISTANCE SPHEROCYLINDRICAL
REFRACTIONS

[REDACTED] DISTANCE AND NEAR VISUAL ACUITY EVALUATION

██████ LENS FITTING CHARACTERISTICS

[REDACTED]

Lens Fitting Characteristics

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NOTE: The determinants of an unacceptable lens fit should be defined in the

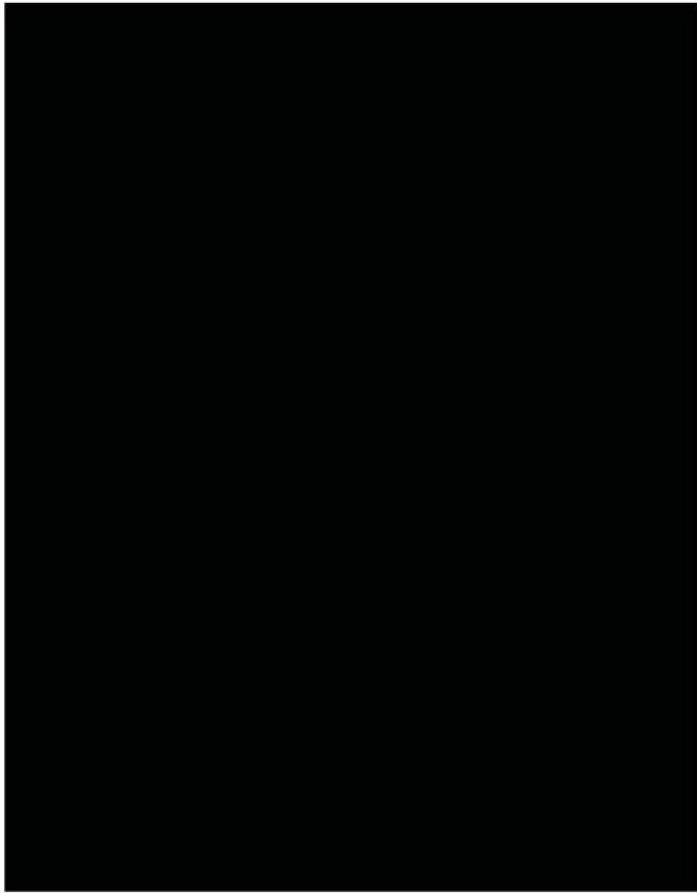
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**████████ DETERMINATION OF DISTANCE SPHEROCYLINDRICAL
REFRACTIONS**

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[REDACTED], DISTANCE AND NEAR VISUAL ACUTY EVALUATION

Title:	Distance and Near Visual Acuity Evaluation

Distance and Near Visual Acuity Evaluation

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3. [REDACTED]

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11/11/2016

1. [REDACTED]

2. [REDACTED]

Title:	Distance and Near Visual Acuity Evaluation		
Document Type:	Clinical Test Procedure		
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

PROTOCOL COMPLIANCE INVESTIGATOR(S) SIGNATURE PAGE

Protocol Number and Title: Protocol CR-5968, "Evaluation of Electronic LogMAR Visual Acuity and Contrast Sensitivity in a Population of Contact Lens Wearers."

Version and Date: Version 3.0, 11-Jul-2017

I have read and understand the protocol specified above and agree on its content.

I agree to conduct this study according to GCP and ICH guidelines, the Declaration of Helsinki, ISO 14155, United States (US) Code of Federal Regulations (CFR), and the pertinent individual country laws/regulations and to comply with its obligations, subject to ethical and safety considerations. The Principal Investigator is responsible for ensuring that all clinical site personnel, including Sub-Investigators adhere to all ICH regulations and GCP guidelines regarding clinical trials during and after study completion.

I will assure that no deviation from, or changes to the protocol will take place without prior agreement from the Sponsor and documented approval from the Institutional Review Board (IRB), except where necessary to eliminate an immediate hazard(s) to the trial participants.

I am responsible for ensuring that all clinical site personnel including Sub-Investigators adhere to all ICH regulations and GCP guidelines regarding clinical trials during and after study completion.

All clinical site personnel involved in the conduct of this study have completed Human Subjects Protection Training.

I agree to ensure that all clinical site personnel involved in the conduct of this study are informed about their obligations in meeting the above commitments.

I shall not disclose the information contained in this protocol or any results obtained from this study without written authorization.

Principal
Investigator:

Signature

Date

Name and Professional Position (Printed)

Institution/Site:

Institution/Site Name

Institution/Site Address