

<Spectacle lenses in concussed kids>

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Table of Contents

STATEMENT OF COMPLIANCE	1
1 PROTOCOL SUMMARY	1
1.1 Synopsis.....	1
1.2 Schedule of Activities (SoA).....	1
2 INTRODUCTION	2
2.1 Study Rationale.....	2
2.2 Background.....	2
2.3 Risk/Benefit Assessment.....	2
2.3.1 Known Potential Risks.....	3
2.3.2 Known Potential Benefits	3
3 STUDY DESIGN.....	3
3.1 Overall Design.....	3
3.2 End of Study Definition	3
4 STUDY POPULATION	4
4.1 Inclusion Criteria	4
4.2 Exclusion Criteria.....	4
4.3 Screen Failures.....	4
4.4 Strategies for Recruitment and Retention.....	5
5 STUDY INTERVENTION	5
5.1 Study Intervention(s) Administration	5
5.1.1 Study Intervention Description	5
5.1.2 Dosing and Administration.....	5
5.2 Measures to Minimize Bias: Randomization.....	5
5.3 Study Intervention Compliance.....	5
5.4 Concomitant Therapy.....	5
6 STUDY INTERVENTION DISCONTINUATION AND SUBJECT DISCONTINUATION/WITHDRAWAL	5
6.1 Discontinuation of Study Intervention	6
6.2 Subject Discontinuation/Withdrawal from the Study.....	6
6.3 Lost to Follow-Up.....	6
7 STUDY ASSESSMENTS AND PROCEDURES	6
7.1 STUDY Assessments.....	6
7.2 Adverse Events and Serious Adverse Events.....	6
7.2.1 Definition of Adverse Events (AE)	7
7.2.2 Definition of Serious Adverse Events (SAE).....	7
7.2.3 Classification of an Adverse Event.....	7
7.2.4 Time Period and Frequency for Event Assessment and Follow-Up.....	8
7.2.5 Adverse and serious adverse Event Reporting	8
7.3 Unanticipated Problems.....	9
7.3.1 Definition of Unanticipated Problems (UP).....	9
7.3.2 Unanticipated Problem Reporting.....	9
8 STATISTICAL CONSIDERATIONS	9
8.1 Statistical Hypotheses.....	9
8.2 Sample Size Determination.....	10
8.3 Statistical Analyses.....	10
8.3.1 General Approach.....	10

8.3.2	Analysis of the Primary Efficacy Endpoint(s)	10
8.3.3	Analysis of the Secondary Endpoint(s).....	10
8.3.4	Safety Analyses.....	10
8.3.5	Baseline Descriptive Statistics	10
9	SUPPORTING DOCUMENTATION AND OPERATIONAL CONSIDERATIONS	10
9.1	Regulatory, Ethical, and Study Oversight Considerations.....	10
9.1.1	Informed Consent Process	10
9.1.2	Study Discontinuation and Closure	11
9.1.3	Confidentiality and Privacy	12
9.1.4	Quality Assurance and Quality Control.....	12
9.1.5	Data Handling and Record Keeping.....	12
9.1.6	Protocol Deviations.....	13
9.1.7	Conflict of Interest Policy	13
9.2	Abbreviations.....	14
10	REFERENCES	15

STATEMENT OF COMPLIANCE

The trial will be conducted in accordance with International Conference on Harmonisation Good Clinical Practice (ICH GCP) and applicable United States (US) Code of Federal Regulations (CFR). The Principal Investigator will assure that no deviation from, or changes to, the protocol will take place without prior documented approval from the Institutional Review Board (IRB), except where necessary to eliminate an immediate hazard(s) to the trial subjects. All personnel involved in the conduct of this study have completed Human Subjects Protection and ICH GCP Training.

The protocol, informed consent form(s), recruitment materials, and all subject materials will be submitted to the local Institutional Review Board (IRB) for review and approval. Approval of both the protocol and the consent form must be obtained before any subject is enrolled. Any amendment to the protocol will require review and approval by the IRB before the changes are implemented to the study. All changes to the consent form will be IRB approved; a determination will be made regarding whether a new consent needs to be obtained from subjects who provided consent, using a previously approved consent form.

1 PROTOCOL SUMMARY

1.1 SYNOPSIS

Title:	Spectacle lenses in concussed kids
Study Description:	Many kids who have sustained a concussion still experience symptoms months after the event. This study will examine if certain types of lenses in glasses will help alleviate those symptoms.
Objectives:	Compare symptoms of concussed kids after wearing different types of glasses, one of which is a control.
Endpoints:	3 month follow up phone call
Study Population:	9-17 year olds who have sustained a concussion and are symptomatic
Phase:	3
Description of Study Intervention:	Different types of glasses lenses that are already commercially available and are used routinely in concussion patient.
Study Duration:	2-3 years, largely dependent on ability to recruit subjects
Subject Duration:	3 months

1.2 SCHEDULE OF ACTIVITIES (SOA)

1. Participants are recruited through routine eye exams at concussion clinic
2. If a patient is eligible for study, an investigator will reach out to the patient at that time to present patient with the opportunity to enroll in the study. The patient has 1 week from that date to decide.
3. Once consents are signed and subject is officially enrolled, they will be randomized into 1 of 3 possible lens options.
4. Investigators will then order the lenses from the supplier to then be fit in patient's glasses
5. Dispense of glasses to participant (timing will vary due to dependence on supplier). Repeat concussion survey at dispense.

6. Masked in-person exam 4-6 weeks from dispense of glasses
 - a. Standard binocular vision assessment for primary and secondary measurements
7. Last assessment: 3 month phone call after dispense of glasses for last concussion survey

2 INTRODUCTION

2.1 STUDY RATIONALE

The main goal for this study is to determine the effectiveness of anti-fatigue (low additional prescription at near) in treating post-concussion patients for their visual symptoms. The main outcome measurement will be the convergence insufficiency symptom survey (CISS) pre-intervention and post-intervention of the anti-fatigue lenses. This will be compared to the CISS results of single vision glasses (rule out placebo effects)

Other secondary outcome measurement will be objective measurements of vergence ranges and accommodation magnitude and flexibility, reduction of symptoms with single vision glasses alone for low refractive error individuals and the effects of anti-reflective coating.

2.2 BACKGROUND

The CDC estimated that over half of the traumatic brain injury (TBI) emergency room visits were for patients 14 years and younger in 2010¹. The actual incidence may be even higher due to unreported TBIs. Mild TBIs or concussions are the most common form of TBIs. There has been a recent increase in interest to understanding the effects of concussions on young patients. Children who sustain concussions tend to have worse and prolonged symptoms compared to adults². These chronic symptoms commonly affect their cognitive ability, and mental and physical health.

A number of studies have set out to determine the associated symptoms and the prevalence and duration of those symptoms. One study measured 73% of 247 concussed children 5-18 years old were still symptomatic 4 weeks post-concussion and 61% reported a decline in grades³. Many studies⁴⁻⁵ agree that one of most common symptoms is visual complaints such as blurred vision and light sensitivity. There have been many studies documenting reduced accommodation and convergence in post-concussion patients⁵⁻⁶. Gallaway⁵ measured 47% and 42% of concussion patients had convergence insufficiency and accommodative insufficiency, respectively. The slow resolution of these visual disorders may lead to disruptions in learning, many children requiring a median of 12 days before returning to part time school³.

Now that there is more knowledge of the repercussions from concussion, it is imperative that we continue to learn how to effectively treat and manage these disorders since the number of concussions is predicted to increase over the years. As of now, there is no standard of care or published effective treatment for binocular and accommodative issues for patients after a concussion. More standardized and objective concussion assessment and post-concussion treatment are needed in research.

2.3 RISK/BENEFIT ASSESSMENT

2.3.1 KNOWN POTENTIAL RISKS

None. This study minimizes risk to the participant by using non-invasive procedures already being done as part of standard clinical eye care practice. Visual acuity, stereoacuity, ocular alignment, and other visual efficiency testing are done as part of standard practice. Unmasked investigators will be available to address these risks, allowing discontinuation of study treatment to pursue other interventions if needed. It is the investigator's opinion that the protocol's level of risk falls under DHHS46.404, which is research not involving greater than minimal risk. Although no adverse events are anticipated as a result of this treatment, all adverse events will be reported.

2.3.2 KNOWN POTENTIAL BENEFITS

It is possible that some of the patients might find resolution of symptoms depending on the treatment arm. The results of this research may change or help guide the treatment of concussion patients by providing evidence-based treatment results. Given the extensive costs related to concussion management and the cost of progressive addition lenses compared to typical glasses prescribed for children, this prospective project will help doctors and families make decisions on prioritizing treatment options following concussion.

3 STUDY DESIGN

3.1 OVERALL DESIGN

This is a multi-site clinical trial (Identifier: NCT03123822) including Boston Children's Hospital, Salus University Pennsylvania College of Optometry, Dr. Nathan Steinhafel's private practice, Akron Children's Hospital, and the University of Alabama at Birmingham (coordinating site). All sites have identical study designs: a prospective randomized group comparison observational study with a masked examiner to treatment arm.

3.2 END OF STUDY DEFINITION

A participant is considered to have completed the study if he or she has completed all phases of the study including the last visit or the last scheduled procedure shown in the Schedule of Activities (SoA), Section 1.3.

The study is considered finished when the study has enrolled 90 participants total or if enrollment is too difficult or with too many adverse effects, then study may be terminated at the discretion of the principal investigator.

4 STUDY POPULATION

4.1 INCLUSION CRITERIA

- 9-17 years of age
- Sustained a concussion ≥ 6 weeks ≤ 16 weeks from date of ophthalmic exam
 - Criteria for concussion: clinically diagnosed by physician
- Best corrected visual acuity: 20/30 in both eyes at near; 20/25 in each eye at distance
- Minimum Stereopsis: 500" global
- CISS score ≥ 16
- Refractive error at least $\pm 0.50D$ sphere or cylinder
- Ability to clear ≥ 0.50 cycles per minute in monocular accommodative flipper of and binocular accommodative flipper

4.2 EXCLUSION CRITERIA

- Diplopia from nerve palsies
- Retinal pathology
- Significant co-morbid neurodevelopmental disorder (e.g. autism spectrum disorder, brain injury, documented neurogenetic disorder; known brain malformation)
- Intellectual/developmental delay
- Prior diagnosis of ADHD that is not adequately controlled with medication
- Previous treatment of any amount of bifocal lenses and base in prism since concussion
 - Vision therapy ≥ 6 weeks since concussion

4.3 SCREEN FAILURES

If a participant is later excluded from the study, they would be notified.

4.4 STRATEGIES FOR RECRUITMENT AND RETENTION

Recruitment will be directly from the eye clinics of Boston Children's Hospital and the University of Alabama School of Optometry. Both clinics already have an established concussion clinic. We will provide patients with a \$5 gift card if they complete the study, although this may be site dependent depending on funding.

5 STUDY INTERVENTION

5.1 STUDY INTERVENTION(S) ADMINISTRATION

5.1.1 STUDY INTERVENTION DESCRIPTION

Different types of glasses lenses that are already commercially available and have been commonly used to treat concussion patients through anecdotal experience.

5.1.2 DOSING AND ADMINISTRATION

Dosing is the same throughout treatment arms. Participants are expected to wear the glasses regardless of treatment arm every day. This would be self-administrated.

5.2 MEASURES TO MINIMIZE BIAS: RANDOMIZATION

Randomization is done as participants are recruited using an excel formula.

5.3 STUDY INTERVENTION COMPLIANCE

The study will be completed by a new resident each year but the PI will have direct oversight of the resident to ensure that the protocol is adhered to. Compliance of the device will be self-reported by the participant.

5.4 CONCOMITANT THERAPY

No concomitant therapy should take place during the study.

6 STUDY INTERVENTION DISCONTINUATION AND SUBJECT DISCONTINUATION/WITHDRAWAL

6.1 DISCONTINUATION OF STUDY INTERVENTION

If the adverse effects are significant, individual participants will be asked to terminate the study. Otherwise, the study may be terminated early due to difficulty in enrollment, per discretion of the PI.

6.2 SUBJECT DISCONTINUATION/WITHDRAWAL FROM THE STUDY

Subjects are free to withdraw from participation in the study at any time upon request.

An investigator may discontinue or withdraw a subject from the study for the following reasons:

- Significant study intervention non-compliance
- If any clinical adverse event (AE), laboratory abnormality, or other medical condition or situation occurs such that continued participation in the study would not be in the best interest of the subject

Subjects who sign the informed consent form and are randomized but do not receive the study intervention may be replaced. Subjects who sign the informed consent form, and are randomized and receive the study intervention, and subsequently withdraw, or are withdrawn or discontinued from the study, will not be replaced.

6.3 LOST TO FOLLOW-UP

A subject will be considered lost to follow-up if he or she fails to return for 2 scheduled visits and is unable to be contacted by the study site staff.

The following actions must be taken if a subject fails to be available for a required study visit:

- The site will attempt to contact the subject and reschedule the missed visit and counsel the subject on the importance of maintaining the assigned visit schedule and ascertain if the subject wishes to and/or should continue in the study.
- Before a subject is deemed lost to follow-up, the investigator or designee will make every effort to regain contact with the subject (where possible, 3 telephone calls and, if necessary, a certified letter to the subject's last known mailing address or local equivalent methods). These contact attempts should be documented in the subject's medical record or study file.
- Should the subject continue to be unreachable, he or she will be considered to have withdrawn from the study with a primary reason of lost to follow-up.

7 STUDY ASSESSMENTS AND PROCEDURES

7.1 STUDY ASSESSMENTS

Study assessments will be done periodically.

7.2 ADVERSE EVENTS AND SERIOUS ADVERSE EVENTS

7.2.1 DEFINITION OF ADVERSE EVENTS (AE)

Adverse event means any untoward medical occurrence associated with the use of an intervention in humans, whether or not considered intervention-related (21 CFR 312.32 (a)).

7.2.2 DEFINITION OF SERIOUS ADVERSE EVENTS (SAE)

An adverse event (AE) is considered “serious” if, in the view of either the investigator or sponsor, it results in any of the following outcomes:

- Death
- A life-threatening adverse event (of note, the term “life-threatening” refers to an event in which the subject was at risk of death at the time of the event, rather than to an event which hypothetically might have caused death if it were more severe)
- inpatient hospitalization or prolongation of existing hospitalization
- a persistent or significant incapacity or substantial disruption of the ability to conduct normal life functions
- or a congenital anomaly/birth defect.

Important medical events that may not result in death, be life-threatening, or require hospitalization may be considered serious when, based upon appropriate medical judgment, they may jeopardize the subject and may require medical or surgical intervention to prevent one of the outcomes listed in this definition. Examples of such medical events include allergic bronchospasm requiring intensive treatment in an emergency room or at home, blood dyscrasias or convulsions that do not result in inpatient hospitalization, or the development of drug dependency or drug abuse.

7.2.3 CLASSIFICATION OF AN ADVERSE EVENT

7.2.3.1 SEVERITY OF EVENT

For adverse events (AEs), the following guidelines will be used to describe severity:

- **Mild** – Events require minimal or no treatment and do not interfere with the subject’s daily activities.
- **Moderate** – Events result in a low level of inconvenience or concern with the therapeutic measures. Moderate events may cause some interference with functioning.
- **Severe** – Events interrupt a subject’s usual daily activity and may require systemic drug therapy or other treatment. Severe events are usually potentially life-threatening or incapacitating. Of note, the term “severe” does not necessarily equate to “serious.”

7.2.3.2 RELATIONSHIP TO STUDY INTERVENTION

All adverse events (AEs) must have their relationship to study intervention assessed by the clinician who examines and evaluates the subject based on temporal relationship and his/her clinical judgment. The degree of certainty about causality will be graded using the categories below. In a clinical trial, the study product must always be suspect.

- **Related** – The AE is known to occur with the study intervention, there is a reasonable possibility that the study intervention caused the AE, or there is a temporal relationship between the study

intervention and event. Reasonable possibility means that there is evidence to suggest a causal relationship between the study intervention and the AE.

- **Not Related** – There is not a reasonable possibility that the administration of the study intervention caused the event, there is no temporal relationship between the study intervention and event onset, or an alternate etiology has been established.

7.2.3.3 EXPECTEDNESS

The Principal Investigator will be responsible for determining whether an adverse event (AE) is expected or unexpected. An AE will be considered unexpected if the nature, severity, or frequency of the event is not consistent with the risk information previously described for the study intervention.

7.2.4 TIME PERIOD AND FREQUENCY FOR EVENT ASSESSMENT AND FOLLOW-UP

The occurrence of an adverse event (AE) or serious adverse event (SAE) may come to the attention of study personnel during study visits and interviews of a study subject presenting for medical care, or upon review by a study monitor.

All AEs including local and systemic reactions not meeting the criteria for SAEs will be captured on the appropriate case report form (CRF). Information to be collected includes event description, time of onset, clinician's assessment of severity, relationship to study product (assessed only by those with the training and authority to make a diagnosis), and time of resolution/stabilization of the event. All AEs occurring while on study must be documented appropriately regardless of relationship. All AEs will be followed to adequate resolution.

Any medical condition that is present at the time that the subject is screened will be considered as baseline and not reported as an AE. However, if the study subject's condition deteriorates at any time during the study, it will be recorded as an AE.

Changes in the severity of an AE will be documented to allow an assessment of the duration of the event at each level of severity to be performed. AEs characterized as intermittent require documentation of onset and duration of each episode.

The Study Coordinator will record all reportable events with start dates occurring any time after informed consent is obtained until 7 (for non-serious AEs) or 30 days (for SAEs) after the last day of study participation. At each study visit, the Study Coordinator will inquire about the occurrence of AE/SAEs since the last visit. Events will be followed for outcome information until resolution or stabilization.

7.2.5 ADVERSE AND SERIOUS ADVERSE EVENT REPORTING

All serious adverse events must be reported to the IRB according to regulatory requirements. The Principal Investigator will immediately report to the sponsor any serious adverse event, whether or not considered study intervention related, including those listed in the protocol or package insert and must include an assessment of whether there is a reasonable possibility that the study intervention caused the event. Study endpoints that are serious adverse events (e.g., all-cause mortality) must be reported in accordance with the protocol unless there is evidence suggesting a causal relationship between the study intervention and the event (e.g., death from anaphylaxis). In that case, the investigator must immediately report the event to the sponsor.

All serious adverse events (SAEs) will be followed until satisfactory resolution or until the Principal Investigator deems the event to be chronic or the subject is stable. Other supporting documentation of the event may be requested and should be provided as soon as possible.

7.3 UNANTICIPATED PROBLEMS

7.3.1 DEFINITION OF UNANTICIPATED PROBLEMS (UP)

The Office for Human Research Protections (OHRP) considers unanticipated problems involving risks to subjects or others to include, in general, any incident, experience, or outcome that meets **all** of the following criteria:

- Unexpected in terms of nature, severity, or frequency given (a) the research procedures that are described in the protocol-related documents, such as the Institutional Review Board (IRB)-approved research protocol and informed consent document; and (b) the characteristics of the subject population being studied;
- Related or possibly related to participation in the research (“possibly related” means there is a reasonable possibility that the incident, experience, or outcome may have been caused by the procedures involved in the research); and
- Suggests that the research places subjects or others at a greater risk of harm (including physical, psychological, economic, or social harm) than was previously known or recognized.

7.3.2 UNANTICIPATED PROBLEM REPORTING

The investigator will report unanticipated problems (UPs) to the reviewing Institutional Review Board (IRB). The UP report will include the following information:

- Protocol identifying information: protocol title and number, PI’s name, and the IRB project number;
- A detailed description of the event, incident, experience, or outcome;
- An explanation of the basis for determining that the event, incident, experience, or outcome represents an UP;
- A description of any changes to the protocol or other corrective actions that have been taken or are proposed in response to the UP.

To satisfy the requirement for prompt reporting, UPs will be reported using the following timeline:

- UPs that are serious adverse events (SAEs) will be reported to the IRB within 10 working days of the investigator becoming aware of the event.
- Any other UP will be reported to the IRB within 10 working days of the investigator becoming aware of the problem.

8 STATISTICAL CONSIDERATIONS

8.1 STATISTICAL HYPOTHESES

- Primary Efficacy Endpoint(s):

The CISS score will be the efficacy endpoint. A CISS score of zero is considered complete resolution of the problem.

- Secondary Efficacy Endpoint(s):

TBD

8.2 SAMPLE SIZE DETERMINATION

This was based on the funding we received from the lenses company.

8.3 STATISTICAL ANALYSES

8.3.1 GENERAL APPROACH

TBD

8.3.2 ANALYSIS OF THE PRIMARY EFFICACY ENDPOINT(S)

TBD

8.3.3 ANALYSIS OF THE SECONDARY ENDPOINT(S)

TBD

8.3.4 SAFETY ANALYSES

If the patient scores well below baseline, 10 points or more at the follow up appointment, then we may remove the patient from the study.

8.3.5 BASELINE DESCRIPTIVE STATISTICS

TBD

9 SUPPORTING DOCUMENTATION AND OPERATIONAL CONSIDERATIONS

9.1 REGULATORY, ETHICAL, AND STUDY OVERSIGHT CONSIDERATIONS

9.1.1 INFORMED CONSENT PROCESS

If eligible, the patient and their parent/guardian(s) will be informed of their eligibility immediately following their standard-of-care eye examination by study personnel. Details of the study will be discussed with the patient and their parent/guardian(s). If interest is indicated, consent/assent forms

will be provided and reviewed by study personnel, and the patient and parent/guardian(s) will be given ample time to review the information, ask questions, and make a decision regarding participation. If the patient agrees to participate immediately, they will sign the appropriate consent/assent forms and then they can pick out frames the same day rather than come back for another time to pick out glasses. Participants can enroll up to 1 week after the enrollment visit if they provide their personal frames or choose from our selection. The families will be then asked to send the signed consent forms back to the investigator by email or regular mail. If the patient does not agree to participate there will be no consequence to them.

9.1.1.1 CONSENT/ASSENT AND OTHER INFORMATIONAL DOCUMENTS PROVIDED TO SUBJECTS

Consent forms describing in detail the study intervention, study procedures, and risks are given to the subject and written documentation of informed consent is required prior to conducting study screening procedures. A separate screening consent form will not be used.

9.1.1.2 CONSENT PROCEDURES AND DOCUMENTATION

Informed consent is a process that is initiated prior to the individual's agreeing to participate in the study and continues throughout the individual's study participation. Consent forms will be Institutional Review Board (IRB)-approved and the subject will be asked to read and review the document. The investigator will explain the research study to the subject and answer any questions that may arise. A verbal explanation will be provided in terms suited to the subject's comprehension of the purposes, procedures, and potential risks of the study and of their rights as research subjects. Subjects will have the opportunity to carefully review the written consent form and ask questions prior to signing. The subjects should have the opportunity to discuss the study with their family or surrogates or think about it prior to agreeing to participate. The subject will sign the informed consent document prior to any procedures being done specifically for the study. Subjects must be informed that participation is voluntary and that they may withdraw from the study at any time, without prejudice. A copy of the informed consent document will be given to the subjects for their records. The informed consent process will be conducted and documented in the source document (including the date), and the form signed, before the subject undergoes any study-specific procedures. The rights and welfare of the subjects will be protected by emphasizing to them that the quality of their medical care will not be adversely affected if they decline to participate in this study.

9.1.2 STUDY DISCONTINUATION AND CLOSURE

This study may be temporarily suspended or prematurely terminated if there is sufficient reasonable cause. Written notification, documenting the reason for study suspension or termination, will be provided by the suspending or terminating party to regulatory authorities. If the study is prematurely terminated or suspended, the Principal Investigator (PI) will promptly inform study subjects and the Institutional Review Board (IRB), will provide the reason(s) for the termination or suspension. Study subjects will be contacted, as applicable, and be informed of changes to study visit schedule.

Circumstances that may warrant termination or suspension include, but are not limited to:

- Determination of unexpected, significant, or unacceptable risk to subjects
- Demonstration of efficacy that would warrant stopping
- Insufficient compliance to protocol requirements
- Data that are not sufficiently complete and/or evaluable
- Determination that the primary endpoint has been met

- Determination of futility

Study may resume once concerns about safety, protocol compliance, and data quality are addressed, and satisfy the IRB.

9.1.3 CONFIDENTIALITY AND PRIVACY

Subject confidentiality and privacy is strictly held in trust by the participating investigators and their staff. Therefore, the study protocol, documentation, data, and all other information generated will be held in strict confidence. No information concerning the study or the data will be released to any unauthorized third party without prior written approval of the Principal Investigator.

All research activities will be conducted in as private a setting as possible.

Representatives of the Institutional Review Board (IRB) may inspect all documents and records required to be maintained by the investigator, including but not limited to, medical records (office, clinic, or hospital) and pharmacy records for the subjects in this study. The clinical study site will permit access to such records.

The study subject's contact information will be securely stored at each clinical site for internal use during the study. At the end of the study, all records will continue to be kept in a secure location for as long a period as dictated by the reviewing IRB and/or Institutional policies.

Study subject research data, which is for purposes of statistical analysis and scientific reporting, will be stored at the UAB Department of Otolaryngology research office. This will not include the subject's contact or identifying information. Rather, individual subjects and their research data will be identified by a unique study identification number. The study data entry and study management systems used by research staff will be secured and password protected.

9.1.4 QUALITY ASSURANCE AND QUALITY CONTROL

The site will perform internal quality management of study conduct, data collection, documentation and completion. Quality control (QC) procedures will be completed by the Data Manager during data entry into the appropriate CRF. Any missing data or data anomalies will be communicated to the Study Coordinator for clarification/resolution.

Following written Standard Operating Procedures (SOPs), the monitors will verify that the clinical trial is conducted and data are generated are collected, documented (recorded), and reported in compliance with the protocol, International Conference on Harmonisation Good Clinical Practice (ICH GCP), and applicable regulatory requirements.

The site will provide direct access to all trial related sites, source data/documents, and reports for the purpose of monitoring and inspection by local and regulatory authorities.

9.1.5 DATA HANDLING AND RECORD KEEPING

9.1.5.1 DATA COLLECTION AND MANAGEMENT RESPONSIBILITIES

Data collection is the responsibility of the clinical trial staff at the site under the supervision of the Principal Investigator. The Principal Investigator is responsible for ensuring the accuracy, completeness, legibility, and timeliness of the data reported.

All source documents should be completed in a neat, legible manner to ensure accurate interpretation of data.

Hard copies of source document worksheets will be used for recording data for each subject enrolled in the study. Data recorded in the case report form (CRF) derived from source documents should be consistent with the data recorded on the source documents.

9.1.5.2 STUDY RECORDS RETENTION

Study documents should be retained for a minimum of 3 years after the completion of the study. These documents should be retained for a longer period, however, if required by local regulations.

9.1.6 PROTOCOL DEVIATIONS

A protocol deviation is any noncompliance with the clinical trial protocol requirements. The noncompliance may be either on the part of the subject, the investigator, or the study site staff. As a result of deviations, corrective actions are to be developed by the site and implemented promptly.

These practices are consistent with ICH GCP:

- 4.5 Compliance with Protocol, sections 4.5.1, 4.5.2, and 4.5.3
- 5.1 Quality Assurance and Quality Control, section 5.1.1
- 5.20 Noncompliance, sections 5.20.1, and 5.20.2.

It is the responsibility of the Principal Investigator to use continuous vigilance to identify and report deviations within 10 working days of identification of the protocol deviation. Protocol deviations must be sent to the reviewing Institutional Review Board (IRB) per their policies. The Principal Investigator is responsible for knowing and adhering to the reviewing IRB requirements.

9.1.7 CONFLICT OF INTEREST POLICY

The independence of this study from any actual or perceived influence, such as by the pharmaceutical industry, is critical. Therefore, any actual conflict of interest of persons who have a role in the design, conduct, analysis, publication, or any aspect of this trial will be disclosed and managed. Furthermore, persons who have a perceived conflict of interest will be required to have such conflicts managed in a way that is appropriate to their participation in the design and conduct of this trial.

9.2 ABBREVIATIONS

AE	Adverse Event
ANCOVA	Analysis of Covariance
CFR	Code of Federal Regulations
CONSORT	Consolidated Standards of Reporting Trials
CRF	Case Report Form
DHHS	Department of Health and Human Services
GCP	Good Clinical Practice
HIPAA	Health Insurance Portability and Accountability Act
ICH	International Conference on Harmonisation
ICMJE	International Committee of Medical Journal Editors
IRB	Institutional Review Board
LSMEANS	Least-squares Means
NCT	National Clinical Trial
NIH	National Institutes of Health
OHRP	Office for Human Research Protections
PI	Principal Investigator
QA	Quality Assurance
QC	Quality Control
SAE	Serious Adverse Event
SAP	Statistical Analysis Plan
SOA	Schedule of Activities
SOP	Standard Operating Procedure
TBD	To be determined
UP	Unanticipated Problem
US	United States

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