3M
Health Care
3M Center
St. Paul, MN 55144-1000

Clinical Study Protocol

Based on the International Conference on Harmonization
Good Clinical Practice
Consolidated Guideline
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Guidance for Industry
E6 Good Clinical Practice:
Consolidated Guidance

U.S. Department of Health and Human Services
Food and Drug Administration
Center for Drug Evaluation and Research (CDER)
Center for Biological Evaluation and Research (CBER)
April 1996
ICH

Clinical Study Protocol

Study Number and Protocol Title	Study 05-014050 [redacted] Tape in Healthy Infant Subjects
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Sub-investigator (if applicable)	Charles Zerweck, PhD Danielle Fendrick (Vice President of Operations)
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Sponsor	3M Health Care Health Care Business Group 3M Center, Bldg 270-3A-04 St. Paul, MN 55144-1000
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cc: Clinical Study Folder
Investigator Study Documentation File (Regulatory Binder)

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1.0 Statement of Compliance

This study, "[redacted] in Healthy Infant Subjects," will be carried out in accordance with Good Clinical Practice (GCP) as required by the following:

- United States (US) Code of Federal Regulations (CFR) applicable to clinical studies (45 CFR Part 46, 21 CFR Part 50, 21 CFR Part 56, 21 CFR Part 312, and/or 21 CFR Part 812)
- ICH GCP E6.

Any and all individuals responsible for the design and conduct of this trial have completed Human Subjects Protection Training.

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

Principal Investigator: _____
Print/Type name

Signed: _____ Date: _____
Signature

2.0 Background Information

2.1 Name, Description and Intended Use of the Investigational Material

[redacted] The adhesive is intended for contact with intact skin for a prolonged period.

The tape is supplied non-sterile in multiple sizes and lengths. The tape does not contain any medicinal substances, biological tissues, or blood products.

[redacted] is a general purpose medical adhesive tape for medical applications used primarily to secure dressings, lightweight tubing, and devices to skin.

2.2 Summary of Previous Studies

The studies completed to assess the biocompatibility of [redacted] were selected based on the international standard ISO 10993-1: 2003 (E), Biological Evaluation of Medical Devices Part 1: Evaluation and Testing.

[redacted] is categorized as a surface device having prolonged contact (24 hours to 30 days) on intact skin. Tests included Cytotoxicity by MEM Elution and Agar Overlay methods per ISO 10993-5; Primary skin irritation in rabbits (24 hour contact time) per ISO 10993-10; and a Guinea Pig Maximization test using saline and sesame oil extracts of the tape per ISO 10993-10. In addition, a Human Repeat Insult Patch Test (HRIPT) was conducted (n=212) on the tape. The tape was determined to be non-cytotoxic, non-irritating, and non-sensitizing.

A toxicology risk assessment of the materials used in [redacted] has been completed by 3M Toxicology & Compliance Solutions, 3M Medical Department, and all materials are considered safe for human use.

During the development of [redacted], a total of 21 clinical studies have been conducted on various, but similar, formulations of the product and there have been no adverse events noted on [redacted]. There have been a total of 272 healthy adult volunteers in these trials. A number of healthy adult volunteers may have participated in more than one 3M internal clinical study. To date there have not been any studies conducted on healthy infants or children.

2.3 Risk/Benefit Summary

Tapes are considered to be low risk medical devices that are commonly used throughout healthcare and in home use, and on patients of various ages, with few problems. Potential risks to the subject include possible itch, slight discomfort during removal, erythema, and skin stripping, typically without any long-term effects. No subject is expected to endure more than slight discomfort upon removal of the tape. There are no medical benefits for a subject who participates in this study.

2.4 Investigational Material Application

The product to be tested is an investigational adhesive tape for medical use and will be used as intended. There will be no control tape for this study. Tape will be provided in 1-inch wide widths and will be applied as 1-inch by 1.5-inch strips onto the back of the subject. The tape will be allowed to remain in place for approximately 24 hours before removal. The tape will be applied and removed according to the procedures listed in Appendix 1.

2.5 GCP and Regulatory Requirements

3M does not consider [redacted] to be a significant risk investigational device. This study will be conducted in compliance with this protocol, GCP, and applicable state and federal regulations, including 45 CFR 160 & 164 (Authorization for Use/Disclosure of PHI), 21 CFR 812.2 [b] (Investigational Device Exemptions-Abbreviated Requirements), and 50 (Informed Consent).

2.6 Study Population

Up to 24 subjects that meet the inclusion/exclusion criteria will be enrolled in the study. During recruitment, an attempt will be made to balance the genders as much as possible. Any subjects that withdraw or are withdrawn from the study may be replaced to ensure that a total of 20 subjects complete the study. (Up to 24 total subjects are anticipated to be screened and potentially enrolled in the study to reach a final enrollment target of 20 subjects.) Subjects will be healthy infant volunteers of either gender, between the ages of 6 months and 4 years of age, and free of skin problems on the intrascapular region of the back. Refer to Inclusion/Exclusion criteria listed in Section 4.0 for more detail.

3.0 Study Objectives and Purpose

The objective of this study is to determine the relative [redacted]. A three-prong multidimensional evaluation consisting of expert grader, subject discomfort assessment, and laboratory assessments will be used. One pre-study visit will take place up to 7 days prior to the start of the study. The study will be conducted over two days with one tape sample applied and removed. Assessments will be taken on the final day. This is to mimic a normal tape application in health care practice. Assessments will be compared to those taken in a previous study.

4.0 Study Design

4.1 Study Type

This will be a prospective study with a multidimensional evaluation, consisting of skin assessments made by an expert skin grader, subject discomfort assessments performed by an expert discomfort grader, and laboratory assessments (hair and skin cell quantification) on the removed tapes.

4.2 Primary and Secondary Endpoints

The primary endpoint will be the change in the subject discomfort (from baseline to the final assessment) using the FLACC (face, legs, activity, cry, consolability) scale.

Secondary endpoints will be laboratory assessments (hair and skin cell quantification), skin erythema (as made by an expert skin grader), skin denudation (skin stripping), and sample lift.

These endpoints will be compared to those taken in a previous study.

4.3 Randomization and Blinding

There will be no randomization used in this study, as only 1 test sample will be evaluated.

The discomfort assessor will be observing the video recording of the subject's full anterior side.

4.4 Study Materials and Labeling

Investigational Material: [redacted], provided in 1-inch wide rolls.

4.4.1 Investigational Material Labeling

3M will label, package and ship the study tape to the research facility. Rolls of tape will be provided in bulk. Each investigational material bulk package will be labeled with the following minimum information:

- Study Number 05-014050
- 3M Health Care Business Group, St. Paul, MN 55144-1000
- [redacted]
- Identifying lot
- Quantity of contents
- For use in study 05-014050 only.
- "Use as directed in protocol"

4.4.2 Other Materials Used in this Study

- Sterile Petri Dishes
- Digital SLR camera (provided by the study investigator)
- Digital Video camera (provided by study investigator)

4.5 Study Duration

The duration of each study subject's participation will be up to 9 days (3 visits), consisting of 1 day for subject screening, including acclimation to study staff and facility, and 2 days for material application and removal.

4.6 Study Termination/Subject Discontinuation or Withdrawal/Subject Revocation of Authorization

4.6.1 Study Termination

3M or the Investigator has the right to discontinue the study at any time for medical and/or administrative reasons. As far as possible, this should occur after mutual consultation.

4.6.2 Subject Discontinuation

The Investigator may discontinue individual subjects from the study at any time. Subjects may voluntarily withdraw from the study at any time. The Investigator will provide a written report on the appropriate CRF describing the reason for discontinuance and the date of discontinuance.

A subject who discontinues may be replaced with another qualified subject who will follow the same treatment scheme as the discontinued subject in order to finish with a minimum of 20 subjects.

4.6.3 Subject Revocation of Authorization to Use and Disclose PHI

In order to implement a valid revocation of authorization, the subject's parent or legal representative **must** make the request in writing to cyberDERM, inc., 867 Sussex Blvd., Broomall, PA 19008. The revocation cannot stop the use or disclosure of information that has been collected prior to the revocation, which is needed to ensure complete and accurate study results and is required by law or government regulation (e.g. reporting adverse events, etc.). Revocation of an authorization may not be used to withhold normal medical care from the subject but may make the subject ineligible to receive the study treatment or care.

4.7 Investigational Material Accountability

3M requires Investigators to maintain accountability and adequate inventory security of the investigational material at all times. The Investigator or designee will:

- Complete a Confirmation of Release and Receipt of Clinical Supplies form and maintain and account for inventory on the Investigational Material Disposition form.
- Keep investigational materials in a secure storage area, accessible only to authorized individuals.
- Dispense investigational material only to subjects properly enrolled into the study.
- Return all unused investigational materials to 3M at the end of the study, or dispose of as agreed upon.

4.8 Source Data

Source data includes any original documents, data, and records where any study data is first recorded (e.g., hospital records, patient charts, laboratory notes, questionnaires, photographs, and consent forms).

For this study, paper case report forms (CRFs) will be provided by cyberDERM for each subject. All required data will be recorded in the CRFs. If study-related data are recorded for the first time directly into the CRF, then the CRF is the source document. Completed CRFs will be reviewed by the site monitor to ensure accuracy and consistency of subject data.

Any discrepancies found during CRF review are to be clarified by the Investigator or designee.

4.9 Protocol Modifications

4.9.1 Protocol Amendments

The party initiating an amendment must confirm it clearly in writing using the Amendment/Administrative Revision form. It must be signed and dated by 3M, and, in the case of a significant amendment, the Investigator. A significant amendment means one that affects the safety, rights or welfare of subjects, the scope of the investigation or the scientific quality of the study.

3M will submit protocol amendments to the Investigator for submission to the IRB for pre-approval. 3M will also notify the Investigator when a protocol amendment may be implemented (post IRB approval).

4.9.2 Protocol Deviations

A deviation is a departure from the protocol.

A protocol deviation is only for an individual subject. Protocol deviations are documented on a Protocol Deviation CRF.

Deviations that potentially affect 1) subject safety, rights or welfare, 2) data integrity or 3) compromise the statistical analysis of the study require immediate communication to 3M; the Investigator must contact the 3M study monitor within 24 hours of occurrence (651-736-4685). A Protocol Deviation Form must be completed by the Investigator and include the type of deviation and a description of the circumstances surrounding the deviation.

Deviations which are made to protect the life or physical well-being of a subject in an emergency must be reported to the IRB within 24 hours after the Investigator learns of the occurrence.

4.10 Computerized Systems

The computer software systems that will be used to create, modify, maintain, archive, retrieve, or transmit data will be: eMatrix, SAS, Excel, Word, Outlook, and Minitab.

Electronic study documents will be stored in eMatrix.

5.0 Subject Selection

5.1 Subject Inclusion Criteria

Subjects will be infants or children of either gender who meet the following criteria:

1. Who are healthy and who have intact skin at the test site with a baseline score of 0 for erythema
2. Who are between the ages of 6 months – 4 years of age (48 months)
3. Who have a Fitzpatrick Skin Type of I, II or III
4. Whose parent or legal representative agrees to not use any products (i.e. topical medications, creams, powders or ointments) on the test sites for 24 hours prior to the study start date
5. Whose parent or legal representative agrees to sponge bathe their child during the study but agrees to not bathe their child 1 hour before each visit.
6. Whose parent or legal representative agrees to not soak the tape during a sponge bath. If the site gets wet, parent or legal representative agrees to pat their child's back dry (no rubbing).
7. Whose parent or legal representative is willing to sign the Informed Consent Form (with photo release) and HIPAA Authorization.

5.2 Subject Exclusion Criteria

Subjects who are specifically excluded from this study are subjects:

1. Who are known to be developmentally delayed
2. Who have any known allergy or sensitivity to tapes
3. Who have sunburn, skin infection or scars, moles, or other blemishes on the back that would obscure grading of the test site
4. Who have had any exposure to other topical medications, creams, powders, or ointments on the test sites 24 hours prior to the start of the study
5. Who have had a strep infection within the 2 weeks prior to the start of the study
6. Who have a history of uncontrolled diabetes, psoriasis, any active dermatitis, or recent history of dermatitis or skin reactions
7. Has participated in any study in the last 2 weeks, or are currently participating in another study, or are scheduled to participate in another study during this study period.
8. Has any other skin disorders that, in the opinion of the investigator, will interfere with the study results or will increase undue risk for the child.

5.3 Subject Assent and Parent Consent

Active written assent will not be obtained because the subjects are not of the appropriate intellectual age (i.e., typically 7 years of age and older).

The Investigator must ensure that written informed consent to participate in the investigation is obtained before including any individual as a subject in the investigation. The Investigator must provide the prospective subject's parent or legal representative sufficient opportunity to consider whether or not to participate, and minimize the possibility of coercion or undue influence. The process is designed to 1) give the subject's parent or legal representative all the information that they need, 2) ensure that the subject's parent or legal representative understands the information and 3) give the subject's parent or legal representative a chance to consider study participation. The process should permit the subject's parent or legal representative to ask questions and exchange information freely.

Specifically, the Investigator is to explain to each subject's parent or legal representative all elements of informed consent (as specified in 21 CFR 50.25 [Appendix 11.1]). After the explanation, the parent or legal representative will voluntarily sign and date the consent form if they wish their child to participate in the study. A copy of the consent form must be provided to the parent or legal representative. A signed and dated copy of the consent form must be maintained in the Investigator study documentation file at all times.

5.4 Subject Authorization for Use and Disclosure of Protected Health Information (PHI)

The Investigator must ensure that written authorization for use and disclosure of protected health information is obtained before including any individual as a subject in the investigation.

Specifically, the Investigator is to explain to each subject's parent or legal representative all elements of authorization as specified in 45 CFR 164.508. After the explanation, the parent or legal representative must voluntarily sign and date the authorization form if they wish their child to participate in the study. A copy of the authorization form must be provided to the parent or legal representative. A signed and dated copy of the authorization form must be maintained in the Investigator study documentation file at all times and may be placed in the subject's medical record.

An authorization form may be combined with a consent form (i.e. compound authorization) if required by the IRB. All required elements for both informed consent and authorization must be included in a compound authorization.

6.0 Treatment of Subjects

See Appendix 1 (Study Schedule) for listing of procedures and assessments.

6.1 Treatment(s) to be administered

6.1.1 Screening Visit (Day -7 to -2)

- Review Inclusion/Exclusion Criteria
- Obtain parent/legal representative consent
- Obtain HIPAA authorization
- Obtain relevant infant medical history
- Acclimate subject to study staff and facility

6.1.2 Washout (Day -1)

- Remind parent or legal representative to refrain from applying topical medications, creams, powders, ointments, etc. on test site area of the subject.

6.1.3 Tape Application (T0)

- Review Inclusion/Exclusion Criteria. Ensure that subjects have not exposed their skin to topical medications, creams, powders, or ointments on the test sites.
- Verify that the subject has intact skin at the test sites with no visible erythema.

- Outline and label 1 site on the child's back, between the shoulder blades using a non-toxic permanent skin marking pen. The site on the back will be 1 inch by 1.5 inches in size. The site will be remarked on Day 2 if needed.
- Perform Expert Grader baseline assessments for erythema.
- Apply investigational tape to intrascapular region with gloved hands. The child may be seated on the parent's or legal representative's lap during sample application for ease of application. Allow to dwell for approximately 24 hours.

6.1.4 Tape Removal (T24)

- Before tape is removed, assess tape lift at the test site. Re-mark test site with non-toxic permanent skin marking pen if needed.
- Begin filming subject when subject is relaxed and record for approximately 2 minutes prior to removal of the tape. Include at start of video a card indicating screening number and subject number.
- Remove tape with gloved hands (continue filming). Collect the tape sample in a Petri dish. Continue filming approximately 2 minutes after tape removal. Include at completion of video a card indicating screening number and subject number. Subject discomfort assessment will be rated externally.
- Take photos and perform Expert Skin Grader assessment for erythema and skin stripping approximately 30 minutes post-removal of tape.
- Tape samples shipped to study sponsor for further laboratory analysis.

7.0 Assessment of Efficacy

7.1 Efficacy Parameters

The following efficacy parameters will be computed for each subject:

7.1.1 Tape Lift

- Measured prior to tape removal at T24 by an expert grader.

7.1.2 Faces, Legs, Activity, Cry and Consolability (FLACC) Behavioral Pain Assessment

- At T24, just prior to tape removal (for approximately 2 minutes), and following tape removal (for approximately 2 minutes), the subject will be videotaped to document their reaction at baseline, upon removal, and after removal of the tape.
- Video recordings will be sent to the 3M, where the subject's reaction will be scored by a discomfort expert (identified by 3M), using the Faces, Legs, Activity, Cry and Consolability (FLACC) Behavioral Pain Assessment. The discomfort expert will be blinded as to whether the video is from baseline or the removal of the tape.
- Video recordings will be made of the subject's full anterior side. The removal of the tape will be completed only when the infant appears to be relaxed (not anxious or stressed).

7.1.3 Skin Erythema and Skin Stripping

- Measured approximately 30 minutes after tape removal on Day 2 by an expert skin grader.

7.1.4 Hair and Skin Cell Quantification

- Measured by established techniques in 3M laboratories.

7.2 Assessment Methods

7.2.1 Lift Assessment

Lift Assessment will be taken prior to removal at T24. Lift will be assessed according to the following scale:

0 = No lift
0.5 = Corner lift only (up to four corners)
1 = 1-25% lift
2 = 26-50% lift
3 = 51-75% lift
4 = 76-99% lift
5 = Tape is missing

7.2.2 Discomfort Assessment

At T24, just prior to tape removal (for approximately 2 minutes), and following tape removal (for approximately 2 minutes), the subject will be videotaped to document their reaction at baseline, upon removal, and after removal of the tape. The video recordings will be sent to the 3M, where the subject's reaction will be scored by a discomfort expert (identified by 3M) using the Faces, Legs, Activity, Cry and Consolability (FLACC) Behavioral Pain Assessment. Video recordings will be made of the subject's full anterior side. The removal of the tape will be completed only when the infant appears to be relaxed (not anxious or stressed).

7.2.3 Laboratory Assessments

The tape sample that has been removed from each subject with gloved hands will be placed in a Petri dish and shipped to 3M for further laboratory testing, including quantifying the amount of hair and skin cells removed by the tape samples. Hair counts will be completed on each tape specimen. The skin cells will be quantified using bicinchoninic acid (BCA) colorimetric detection and protein quantification on the same tape samples. The samples will be identified by screening number and subject number. If samples fell off during the 24 hour wear, the samples will not be retrieved.

7.2.4 Expert Skin Grader Assessments

At T0 (Baseline), Expert Skin Grader Assessments of Erythema will be made prior to the first tape application. At T24, Expert Skin Grader Assessments will be made approximately 30 minutes after the tape is removed. If the sample is missing at T24, no assessment will be conducted.

3.2.1.1 Erythema & Edema Visual Assessment Method

Score	Description of Response
0	No visible response
1	Mild Response. Diffused, patchy, not well-defined, just **barely perceived erythema**. No perceivable edema.
2	Moderate Response. Perceivable erythema is obvious, with diffused redness. **Pink or red in color, area well defined**. No edema.
3	Severe Response. Obvious erythema. **Definite red in color, area well defined.** Edema Present.
4	Extreme Response. **Bright, fiery red erythema**. Edema is present.

3.2.1.2 Skin stripping (Denudation) Scale

Score	3M Denudation Severity Scale
0	No sign of denudation.
1	Trace amount of denudations in epidermis. **(Slight glazed appearance).**
2	Partial thickness denudations (first sign of pitting in the skin) extending up to the glistening layer of the epidermis. **(Moist and/or wet surface).**
3	Full thickness denudations extending into the dermis. **(Exudates present on the test site)**
4	Full thickness denudations extending into the dermis or in combination with an extreme Erythema/Edema response.

Erythema with edema will be assessed at T0 and T24. Skin stripping will be assessed at T24.

7.2.5 Photography

Photographs will be taken at T24 to document skin reactions. The photographs may be used in publications to visually document the erythema scores determined by the Expert Skin Grader.

8.0 Assessment of Safety

8.1 Safety Parameters

The principle measure of safety will be the incidence of tape-related adverse events reported during the study.

8.2 Anticipated Events

For the purpose of this study, any signs or symptoms of expected events associated with the tape application/removal including erythema, skin stripping, itching and discomfort upon removal may or may not be coded as an adverse event based on the investigator assessment.

If any of these irritation parameters appear to be highly exacerbated, more than normally associated with use conditions in this type of population, the event will be recorded as an adverse event. This can only be determined by the investigator.

8.3 **Adverse Events**

The Investigator is responsible for identifying adverse events that occur to each subject throughout the study and follow-up period. An adverse event can occur at any time during the conduct of the study, in any phase of the study or after the study is completed. An adverse event can be identified by the Investigator or reported by the subject.

For this study, any non-device adverse events (e.g. common cold, falls, systemic illnesses, etc.) will not be recorded. All device-related and serious adverse events will need to be reported to the sponsor.

Note: The Federal Privacy Rule (HIPAA) specifically permits the use and disclosure of protected health information "without written authorization of the individual" when used for public health activities such as reporting adverse events, tracking FDA-related products, enabling recalls, repairs, replacements, lookbacks, or conducting post-market surveillance [45 CFR 164.512]. This use and disclosure is subject to the minimum necessary standard, i.e. "the minimum necessary to accomplish the intended use, disclosure, or request" [45 CFR 164.502(b)(1)].

Definitions:

- Adverse event (AE) means any undesirable clinical occurrence in a subject whether or not it is considered to be device related.
- Device-related adverse event (i.e. adverse device effect) is an AE considered by the Investigator to have a reasonable likelihood of being associated with the investigational device.
- Serious adverse device effect is a device effect that has a serious adverse effect on health or safety causing hospitalization or prolonged hospitalization, or is life threatening or causes death.
- Unanticipated adverse device effect is any serious adverse device effect on health or safety or any life-threatening problem or death caused by, or associated with a device if that effect, problem or death was not previously identified in nature, severity or degree of incidence in the investigational plan or application, or any other unanticipated serious problem associated with a device that relates to rights, safety and welfare of subjects.

Recording and Reporting

The Investigator records each material-related adverse event on an Adverse Event CRF. Documentation includes the description, severity, seriousness, date of onset and resolution, relationship to the investigational material, action taken and outcome.

The Investigator must promptly report an adverse device effect to the 3M study monitor. If the adverse device effect is also considered by the Investigator to be serious and/or unanticipated, the Investigator must report it to the IRB as soon as possible and within IRB requirements.

A serious AE involving a non-3M commercialized product is reported to the 3M study monitor and IRB.

If a subject has no adverse device effect during the study, the absence of such must be recorded on the CRF.

9.0 Statistics

9.1 Data Sets Analyzed

Data obtained for all subjects that enter the study and have samples applied will be analyzed in this study.

9.2 Statistical Methods

9.2.1 Efficacy Analyses

The BCA results will be summarized, and log-transformed data will be compared to a previous study.

Cumulative FLACC scores will be calculated from this study and compared to a previous study.

Summary statistics will be provided for all variables tested in the study. This includes tables with mean, median, std dev, min, and max, as well as frequency distribution tables when needed.

9.2.2 Safety Analyses

The analyses listed above for erythema, denudation, and discomfort will be carried out as the safety analyses.

9.3 Sample Size Justification

The sample size of 20 is needed so that the one-sided Wilcoxon signed rank test will have approximately 80% power to detect a $p>0.5$ assuming that the observed $p=0.85$ with significance level set at 0.05, where p=probability of observing a higher ordinal FLACC score in one sample than the other sample when comparing to a previous study.

9.4 Procedures for Accounting for Missing, Unused, and Spurious Data

Subjects who do not comply with the requirements of this study will be dropped. Any subject who withdraws from this study or is dropped for cause may be replaced to ensure that a minimum of 20 subjects complete the study. In the event that lost subjects have a material effect on the analysis of the study and the importance of the conclusions drawn from the study, efforts will be made to consult with the study requester and a statistician to discuss how to best address the issues.

9.5 Deviations to Statistical Plan

Any deviation(s) from the original statistical plan should be described and justified in the final report, as appropriate.

10.0 Monitoring

3M, as sponsor of this study, is responsible for ensuring the proper conduct of the study with regard to protocol adherence and validity of the data recorded on the CRFs. 3M has therefore assigned a study monitor to this study. The progress of the study will be monitored by:

- Periodic on-site review
- Telephone communications
- Review of CRFs and source documents (e.g. Expert Skin Grader notes, photographs, video recordings, etc.)

The Investigator will give the 3M study monitor direct access to source documents that support data on the CRFs and make available such records to authorized 3M quality assurance, IRB, and regulatory personnel for inspection and/or copying.

Note: The Federal Privacy rule (HIPAA) specifically permits the use and disclosure of protected health information "to a person subject to the jurisdiction of the Food and Drug Administration (FDA) [e.g. study sponsor] with respect to an FDA-related product or activity for which that person has responsibility, for the purpose of activities related to the quality, safety, or effectiveness of such FDA-regulated product or activity" [45 CFR 164.512(b)(1)(iii)].

11.0 Quality Control and Quality Assurance

3M is responsible for implementing and maintaining quality assurance and quality control systems through written standard operating procedures (SOPs) to ensure that this study is conducted and data are generated, documented and reported in compliance with the protocol, GCP and regulations cited in Section 1.5 of this protocol. Study monitoring is carried out to accomplish this.

12.0 Ethics

This study will be conducted in accordance with the principles that have their origin in the Declaration of Helsinki, 21 CFR 50 (Informed Consent) and 56 (IRBs).

The study will start only after approval of the protocol and consent form by the IRB. The approval letter or notice must contain the IRB name and identification number, meeting date, and sufficient information to identify the protocol and informed consent by name and number that were reviewed. 3M, prior to study initiation, must receive a copy of the IRB approval letter.

12.1 Confidentiality

Participant confidentiality and privacy is strictly held in trust by the participating investigators, their staff, and the sponsor. This confidentiality is extended to cover testing of biological samples and genetic tests in addition to the clinical information relating to participants. 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 sponsor.

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

The study monitor, other authorized representatives of the sponsor, representatives of the Institutional Review Board (IRB), or regulatory agencies 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 participants in this study. The clinical study site will permit access to such records.

The study participant'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, Institutional policies, or sponsor requirements.

Study participant research data, which is for purposes of statistical analysis and scientific reporting, will be transmitted to and stored within 3M's secure electronic documentation system, based in St. Paul, MN. This will not include the participant's contact or identifying information. Rather, individual participants and their research data will be identified by a unique study identification number. The study data entry and study management systems used by clinical sites and by 3M's research staff will be secured and password protected.

13.0 Data Handling and Record Keeping

13.1 Study Personnel

Prior to study initiation, the Investigator must provide 3M with a signed Investigator Agreement (Statement of Investigator). The agreement contains pertinent investigator information (e.g. qualifications, experience, etc.) as well as the Investigator's commitment to conduct the study according to the protocol and all applicable state and federal regulations.

13.2 Pre-Study Documentation Requirements

Prior to study initiation, the Investigator must provide 3M with the following documents:

- Signed protocol including any amendments in place prior to study initiation
- Curriculum vitae for the Investigator and any co-investigators
- IRB-approved consent form
- HIPAA Authorization form
- IRB study approval letter
- IRB name, location and chairperson
- IRB membership list or identification number
- Signed investigator agreement (Statement of Investigator)
- Signed Research Agreement

13.3 Completion and Return of Case Report Forms

Paper case report forms (CRFs) will be provided by the study center for this study. Data may be recorded onto data collection sheets prior to entry on the CRFs, or it may be entered directly onto the CRFs. Once the forms are completed, the monitor will review the CRFs to ensure accuracy and completeness. The Investigator must review the CRFs for each subject in a timely fashion following completion.

13.4 Final Report

The investigator will provide a study report detailing the conduct of the study.

3M will have an analysis performed and prepare a final study report. The investigator will be provided with a copy of the report for his review and comment. The final report will be a record of the total study conduct and will be subject to review by the Investigator and 3M. The final report will assess and summarize all data collected and include:

- Sponsor and test material identification
- Study procedure
- Dates of study initiation and completion
- Copies of the raw data

Source data for this study will be maintained according to the study site's standard operating procedure.

13.5 Records, Reports and Retention Requirements

The Investigator will maintain study records for a minimum of 2 years following completion of the study. Records that must be maintained by the Investigator include, but are not restricted to:

- Signed study protocol, amendments, deviations
- IRB approval of study, protocol, and consent form
- Applications to the IRB
- Signed consent and authorization forms
- Case report forms
- Adverse event reports
- Correspondence relating to the study
- Sponsor Final Report

14.0 References

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2. McNichol L, Lund C, Rosen T, Gray M. Medical Adhesives and Patient Safety: State of the Science. *J Wound Ostomy Continence Nurs*. 2013;40(4):1-15.
3. Grove GL, Zerweck C, Houser T, Smith GE, Koski NI. Adhesive Tape Trauma Evaluation of Two Gentle Tapes in Health Human Subjects. Poster, SAWC 2011, WOCN 2011.
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8. Zeng LA, Lie SA, Chong SY. Comparison of 3M Kind Removal Silicone Tape vs Standard Tapes Durapore/Medipore on the Face in Patients at Risk of Skin Trauma under Anaesthesia. Poster, Would Anesthesia Congress 2013.
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11. Grove, GL, Zerweck C, Ekholm B, Smith GE, Koski NI. Randomized Comparison of a Silicone Tape and a Paper Tape for Gentleness in Health Children. *J Wound Ostomy Continence Nurs*. 2014;41(1):40-48.
12. Wong I, Chow SY, Ghadiali N, Chong SY, Tham CS. Comparison of the Use of Kind Removal Silicone Tape vs Micropore Paper Tape on Patients' Eyelids under General Anaesthesia – is One Superior to Another? *Am Soc of Regional Anesthesia and Pain Medicine*. 2014;39(5):E233.
13. Manriquez S, Loperfido, B, Smith G. Evaluation of a New Silicone Adhesive Tape among Clinicians Caring for Patients with Fragile or At-Risk Skin. *Advances in Skin & Wound Care*. 2014;27:163-170.
14. Zeng LA, Lie SA, Chong SY. Comparison of Medical Adhesive Tapes in Patients at Risk of Facial Skin Trauma under Anesthesia. *Anesthesiology Research and Practice*. 2016:1-6.

Appendix 1 Study Schedule

Study Day	-7 to -2	-1	T0	T24
Review Inclusion/Exclusion Criteria	x			
Obtain Consent and HIPAA Authorization (Parent/Legal Representative)	x			
Acclimate Subject to Study Staff and Facility	x			
Remind Parent/Legal Representative to Refrain from Applying Topical Medications, Creams, Powders, and Ointments on Test Site Area		x		
Confirm Inclusion/Exclusion Criteria			x	
Take Baseline Erythema Assessments			x	
Apply Test Material			x	
Assess Tape Lift				x
Record Video of Subject				x
Remove Test Material				x
Take Photos				x
Assess Erythema and Skin Stripping				x
Record Adverse Device Events			x	x