Medline Industries, Inc.

Protocol Number: R17-019

Efficacy of Meatal and Perineal Care with a Prepackaged Cleansing Cloth and Standardized Cleansing Protocol in Reducing Catheter-Associated Urinary Tract Infections in Acute-Care Hospitals

December 19, 2019
Version 5.0

Aditi Mathur, PhD - Medline Industries, Inc.

Digitally signed by Aditi Mathur, PhD - Medline Industries, Inc.
Date: 2020.01.02 14:30:32 -06'00'

Prepared by (Signature) | Date

Rosie D. Lyles, MD, MHA, MSC

Digitally signed by Rosie D. Lyles, MD, MHA, MSC
Date: 2020.01.03 16:45:37 -06'00'

Reviewed by (Signature) | Date

Medline Industries, Inc.
Three Lakes Drive
Northfield, IL 60093

PRINCIPAL INVESTIGATOR STATEMENT OF COMPLIANCE

- I agree to conduct the study in accordance with the relevant, current protocol and will make changes in the protocol only after notifying the Sponsor, except when necessary to protect the safety, rights, or welfare of subjects.
- I agree to personally conduct and supervise the investigation as described within.
- I agree to report to the Sponsor, IRB and/or Ethics Committee, according to the protocol, adverse experiences that occur during the course of the investigation in accordance with guidelines for Good Clinical Practices, and 21 CFR 812.
- I have read and understand the information in the protocol, including the potential risks.
- I agree to maintain adequate and accurate records in accordance with guidelines for Good Clinical Practices and 21 CFR 812.140 and to make those records available for inspection.
- I will ensure that an IRB compliant with the requirements of guidelines for Good Clinical Practices and 21 CFR Part 56 will be responsible for the initial and continuing review and approval of the clinical investigation. I also agree to promptly report to the IRB all changes in the research activity and all unanticipated problems involving risks to human subjects or others.
- I agree to comply with all other requirements regarding the obligations of clinical investigators and all other pertinent requirements in the guidelines for Good Clinical Practices, and the Code of Federal Regulations.

I have received and reviewed this Investigational Plan. I will conduct the study as described.

Principal Investigator (Print)	
Principal Investigator (Signature)	Date

DOCUMENT HISTORY

Version	Date	Description of Change	Brief Rationale
1.0	19-Oct-2017	Initial Release	N/A
2.0	20-Mar-2018	Section 4.1: Grammatical edit	Grammatical edit
		Section 5.2: Add exclusion criteria	Protect vulnerable populations (pediatric, pregnant, and psychiatric patients) and exclude Emergency Room, where catheter care is not routinely performed due to short length-of-stay in unit
		Sections 6.1 & 6.2: Revision to training procedures	Explicitly states who will be trained, who is responsible for any training during study, and what materials and equipment will be provided.
		Section 6.3 & 9.1.3: Clarification on database access	Clarification to indicate the sponsor may need access to the master linking list with participant IDs and names in the event of an Adverse Event or other situation. The database will still be housed at NorthShore.
		Section 6.3.1.1: a) Edits to data collection process, b) variables conducted and c) reference to the Case Report Form that can be found in Appendix 11.2.	A) The use of REDCap for electronic CRF capture is no longer an option. Paper CRFs will be created to comply with regulatory requirements and then transferred to an electronic database. B) Certain variables could not be collected for the retrospective group, so these have been updated as well. C) A copy of the paper CRF is referenced in this section, and can be found in Appendix 11.2.
		Section 6.3.1.1.3: Edits to the process for collecting healthcare professional feedback on the product.	Clarifies the process for data collection and stresses that participation is strictly voluntary with no impact on employment. A copy of the email that will be sent to potential participants is provided in Appendix 11.7.

		Section 6.3.1.2: Edit to retrospective data collection process.	Indicate that retrospective data will also be collected using the paper Case Report Form.
		Section 6.3.2: Edit to the compliance process	Compliance will be measured via the internal audits rather than a count of all product used.
		Section 8.2.1: edit to statistical analysis plan and methods for primary endpoint	Minor edits to provide more detail and clarity
		Section 8.2.3.1: Edit to analysis plan of healthcare professional feedback	Indicate these data will be analyzed while study is ongoing
		Section 9.1.4: Edits to Personnel	Inclusion of additional staff members
		Section 9.1.7.1: Edits to data management	Change from REDCap system to paper Case Report Form system
		Appendix 11.5: Case Report Form replaces previous material.	Case Report Form added now that data collection will be in paper form
		Appendix 11.6: Case Report Form for urine culture sub-analysis	Provide separate Case Report Form for this portion of the study since it will only entail a small sub-sample of the study sample.
		Appendix 11.7: Sample e-mail to NorthShore employees for participation in feedback portion of study.	Provide IRB with direct language for communication to NorthShore employees
3.0	31-Jul-2018	Appendix 11.1.3	Updated instructions for use for ReadyBath Intelligent Warmer as a different model is to be used for the study.
4.0	02-Jan-2019	6.1: Events Prior to Intervention	Clarify typographical error to Nurse Educators
		6.3.1.2: Retrospective Data Collection	Clarify retrospective data collection to reflect that only in-depth details will be collected for subjects that developed a CAUTI

		8.2.1: Primary Endpoint	Modification of analysis plan due to change in data collected (modification took place before looking at data)
		Section 9.1.4: Key Roles and Study Governance	Removed all titles and responsibilities for NorthShore and Sponsor Staff; only Principal Investigator information will remain.
		Section 9.1.7.1: Data Collection and Management Responsibilities	Clarify CRF data collection for prospective and retrospective portions.
5.0	19-Dec-2019	Months were replaced with catheter days.	Changes in the timeline due to extension of the study.
		Addition in Section 6.3.2: Compliance with Intervention/Auditing.	Updated the information in section 6.3.2 regarding second set (and subsequent, if required) of audits.
		Addition of Section 11.1.4: ReadyBath® Intelligent Warmer	Included the older (section 11.1.3) and the newer (section 11.1.4) warmers, with their instructions for use (IFU), in this protocol. Some of the older warmers may be replaced with the newer version, as they malfunctioned and the manufacturer has discontinued the older warmer.
		Updating Section 7.2.1: Severity of event and Section 11.3: Adverse Event form	Updated the Adverse Event (AE) form in section 11.3, such that the severity of all AEs will now be graded on a scale of one through five according to the most recent version of the Common Terminology Criteria for AEs guideline. These changes were also included in section 7.2.1. Since no AEs were reported in the study so far, only the updated version of the AE form will now be used for reporting AEs, if any.
		Updating Section 11.4: Serious Adverse Event form	Updated the Serious Adverse Event (SAE) form to highlight the steps that the study staff and Principal Investigator need to take in order to report any SAE during the course of the study. Since no SAEs were

			reported in the study so far, only the newer version of the SAE form will now be used for reporting SAEs, if any.

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1. PROTOCOL SYNOPSIS

Title:	Efficacy of Meatal and Perineal Care with a Prepackaged Cleansing Cloth and Standardized Cleansing Protocol in Reducing Catheter-Associated Urinary Tract Infections in Acute-Care Hospitals
Study Description:	A single-site, open-label, superiority study evaluating the efficacy of a prepackaged cleansing cloth and standardized cleansing protocol vs. current standard-of-care for catheter care and maintenance.
Objective:	Reduction in CAUTIs following implementation of prepackaged cleansing cloth and standardized cleaning protocol for all indwelling urinary catheter (IUC) care and maintenance, relative to current standard-of-care for the site.
Endpoint:	Incidence of CAUTI during intervention period compared to historical rate prior to intervention period.
Study Population:	Adult male and female patients who have an IUC inserted during their hospitalization at a northern suburban Chicago hospital system comprised of four acute-care hospitals. The study is powered to achieve a certain number of catheter days rather than participant number; prospective data collection will occur until all expected catheter days (42,672) have been completed.
Phase:	Post-market
Description of Sites/Facilities Enrolling Participants:	A hospital system composed of four acute-care facilities in the northern Chicago suburbs
Description of Study Intervention:	A pre-packaged, pH balanced, hypoallergenic cleansing cloth with a standardized cleaning protocol for IUC care and maintenance.
Study Duration:	The study will last until all expected catheter days (42,672) have been completed, and all data have been analyzed.
Participant Duration:	Participant duration will vary in length depending on how long they have an IUC inserted.

2. INTRODUCTION

2.1. Study Background and Rationale

Catheter-associated urinary tract infections (CAUTI) are one of the most common hospital-acquired infections (HAI), accounting for more than 15% HAIs in the United States.[1] On October 1, 2008, the Centers for Medicare & Medicaid Services (CMS) stopped reimbursing hospitals for treatment of preventable HAIs.[2] Subsequently, hospitals have implemented CAUTI prevention bundles to reduce these largely preventable, costly, and morbid infections. Guidelines for the prevention of CAUTI focus on the following four aspects of prevention: appropriate device utilization, aseptic insertion technique, proper care/maintenance of the catheter, and timely removal of the urinary catheter.

Several interventions seeking to reduce CAUTIs have studied the impact of chlorhexidine gluconate (CHG) bathing in the intensive care unit (ICU) but have not found a significant effect.[3-7] Though one study did find a significant reduction in high-level (>50,000 colony-forming units) candiduria and any level of bacteriuria with CHG bathing, the study did not evaluate the impact on CAUTI rates, nor did it investigate the effect of perineal care and maintenance following catheter insertion.[8] Additionally, the expanded use of CHG carries with it the potential for development of CHG-resistant bacteria which could compromise its use for surgical site infection prevention.

Few studies have exclusively investigated the effect of catheter care and maintenance on CAUTI rate. ReadyCleanse® meatal and perineal cleansing cloth by Medline Industries, Inc. (hereafter ReadyCleanse®) is a set of five prepackaged cloths including a gender-specific, five-step cleansing process clearly described on label that is designed to minimize transfer of bacteria to the patient during catheter care. Moreover, it does not contain ingredients that are bactericidal or bacteriostatic, thereby reducing the risk of compromising interventions such as CHG prior to surgery due to overuse. Thus, ReadyCleanse® provides an easy-to-use, efficient, and standardized means of conducting catheter care that may significantly reduce CAUTI rates compared to standard-of-care.

2.2. Risk/Benefit Assessment

ReadyCleanse® cloths are currently marketed products in the United States that are intended for meatal and perineal care, including when a patient has an indwelling urinary catheter (IUC) inserted. In this study, ReadyCleanse® cloths will be used strictly in accordance with their current labeling. ReadyCleanse® cloths were evaluated for safety through a repeat insult patch testing (RIPT) study in adults and a pediatric safety in use study. Based on the results of the RIPT study, it was concluded that ReadyCleanse® cloths did not have potential for eliciting dermal irritation or inducing sensitization.[9] Based on the results of the pediatric safety in use study, it was concluded that ReadyCleanse® cloths did not demonstrate a potential to cause skin irritation for the study duration.[10] Taken together, the risk to patients through use of the ReadyCleanse® cleansing cloths is minimal. In terms of benefit, it is possible that patients in this study may directly receive a benefit. The majority of satellite hospitals within the main site currently use soap-and-water for their catheter care and maintenance, which has the potential to become contaminated and transfer bacteria to the patient,

especially when the cleansing is not done in a standardized, systematic way. If the use of ReadyCleanse® cloths and the cleansing process described on label does reduce CAUTI, as is hypothesized, many patients in the study may have had a CAUTI prevented. Additionally, the reduction of CAUTI with the use of ReadyCleanse® could further develop global best practices for catheter care and maintenance to avoid CAUTIs. In sum, the benefits in this study outweigh the minimal risk presented to participants in the study.

3. OBJECTIVES AND ENDPOINTS

OBJECTIVES	ENDPOINTS	JUSTIFICATION FOR ENDPOINTS
Primary		
Evaluate if ReadyCleanse® cleansing cloths reduce CAUTI when used to perform catheter care and maintenance.	The primary endpoint will be incidence of CAUTI, measured per 1000 catheter days. The rate during the intervention will be compared to the historical rate for the facilities for the period preceding the intervention.	This endpoint was chosen as it is a direct measure of the objective of the study, using well-accepted criteria.
Secondary		
Evaluate if use of ReadyCleanse® cloths reduces bacteria counts in urine. This may provide a mechanistic account of any reduction in CAUTI.	Number of colony forming units (cfu/ml) of bacteria in urine from a random sub-sample of participants in the intervention, compared to a random sample collected prior to the intervention beginning.	This endpoint is a direct measure the objective, using well-accepted methodology.
Exploratory		
Evaluate the financial impact of using ReadyCleanse® cloths as the standard-of-care for catheter care and maintenance.	Cost savings in dollars through avoided CAUTIs, taking into account the cost of the product over the standard-of-care.	Common measure of financial savings used in Health Economics Outcomes Research
Gain feedback from healthcare professionals on the use of the product.	Healthcare professionals who administer the intervention will be asked to fill out a questionnaire (Appendix 11.2) about their experience with the product. Mean values from a four-choice scale will be computed for descriptive purposes.	Common survey approach to eliciting feedback on preferences.

4. STUDY DESIGN AND INTERVENTION

4.1. Overall Design

This is an open-label, superiority study intended to determine if IUC care and maintenance with a prepackaged cloth and standardized cleansing process (ReadyCleanse® Meatal and Perineal Cleansing Cloth) can reduce CAUTI relative to standard-of-care. Four northern suburban Chicago acute-care hospitals, all within the same system (NorthShore University Health System), will implement ReadyCleanse® as the standard-of-care for catheter care and maintenance. An initial training period of six weeks will first occur, during which medical staff will be trained on the appropriate use of the product, and have several weeks to become accustomed to it. Following this six-week training period, data will be collected on incidence of CAUTI prospectively for the duration until all expected catheter days (42,672) have been completed. The incidence rate of CAUTI during the intervention period will be compared to the incidence rate for a similar number of catheter days prior to the six-week training period. A significant reduction in CAUTI rate during the intervention period will be taken as evidence of the ReadyCleanse® cloths and standardized cleansing process likely reducing CAUTI. The end of the study will coincide with the 42,672 catheter days, at which point the study should be adequately powered (see Section 8).

The choice of using a retrospective control was due to balancing the need for a high volume of catheter days in order to adequately power the study, and conducting the study in a reasonable timeframe (see section 8). During the intervention period, all four hospitals will continue using their baseline CAUTI bundle prevention measures, and no additional new interventions will take place during the study period. Also, given that this study is using the ReadyCleanse® cloths per their intended use and implementing the intervention simultaneously across the entire hospital system, it takes the form of a quality improvement initiative whereby the use of a retrospective control is commonly used. Nonetheless, conclusions drawn from this study will emphasize the intervention as a whole, such as staff training on how to use the cloths, instructions for how often to use the cloth, as well as the properties of the ReadyCleanse® cloths and standardized cleansing process, in order to make the appropriate conclusion given the known limitations of the use of a retrospective control.

4.2. Investigational Product

The intervention in this study will be the implementation of ReadyCleanse® cloths and the standardized cleansing process detailed on label as the new procedure for catheter care and maintenance across all four hospitals. This cloth is a currently marketed product which contains a pH-balanced, hypoallergenic solution. ReadyCleanse® cloths are specially designed for comprehensive meatal and perineal care to reduce the risk of developing a catheter-associated urinary tract infection (CAUTI). Each package contains five ReadyCleanse® cloths and a standardized cleansing protocol available on label. A copy of the product labeling and cleansing protocol is available in Appendix 11.1. Cleansing with ReadyCleanse® cloths and the standardized procedure will take place twice during a 24-hour period and after an incontinent episode.

4.3. Control Group

A retrospective control group will be used to compare the efficacy of the intervention. The standard-of-care for catheter care and maintenance at NorthShore hospitals is soap-and-water cleansing. Thus, the ReadyCleanse® cloth and cleansing process will be compared to soap-and-water cleansing. The ICU of one of the hospitals recently switched to using a different method for catheter care. Consequently, data from this unit will not be added to the retrospective dataset, but this unit will participate in the intervention and have their prospective data pooled with the other units and hospitals.

4.4. Study Intervention

The study intervention will consist of two phases. An "Educational Intervention" will serve as a wash-in period and will take place in the first six weeks of the study; during this period of time clinical staff at all four hospitals will be trained on the proper usage of ReadyCleanse® and will gain experience using it in the clinical setting before data collection begins. The second phase will be a 42,672-catheter day-period, where data on CAUTI incidence will be collected while the ReadyCleanse® cloth and standardized process is in use for catheter care and maintenance. Figure 4.1 depicts the flow of the intervention.

Figure 4.1

Wash-in Period	ReadyCleanse® as standard care for all catheter care and maintenance at all four hospitals															
1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5	12.5	13.5	14.5	15.5	16.5	17.5*
Months																
	*Study timeline may extend past 17.5 months. Study duration will be determined via completed catheter days (42, 672)															

5. STUDY POPULATION

5.1. Inclusion Criteria

- Any adult patient who requires an IUC to be placed during admission to one of the four study hospitals.

5.2. Exclusion Criteria

- Patients < 18 years old.
- Patients whose entire hospital stay occurs in:
  - Pediatric unit
  - Psychiatric unit
  - Labor & Delivery or Postpartum units

- Emergency Room

5.3. Other Considerations

Given that this intervention will become the new standard-of-care with respect to catheter care and maintenance in the hospital system, as is appropriate given the product's indications for use, we will not be screening participants (other than age), actively recruiting, or obtaining informed consent. All HIPAA rules will be strictly observed at all times in order to minimize any breaches of patient privacy and confidentiality (please see Section 9 for more details).

6. STUDY PROCEDURE

6.1. Events Prior to Intervention

Clinical staff at the sites will receive training by a Medline Industries, Inc. Clinical Research Associate (CRA) and/or Clinical Product Specialist on the use of the ReadyCleanse® cloths and the standardized cleansing procedure prior to the start of ReadyCleanse® cloth use. Medline staff will offer training sessions to NorthShore health care providers who perform IUC routine catheter care (e.g. patient care technicians, staff nurses, etc.) during all shifts at each hospital to ensure effective and consistent use of the product. The training will also be offered to NorthShore Clinical Care Coordinators, Nurse Educators, and Study Research Nurses, along with NorthShore clinical research staff. Nurse Educators will be responsible for training newly hired personnel or any staff that could not attend the training sessions; Nurse Educators should document all training sessions. Training materials will be a combination of a Medline-produced product use video, review of ReadyCleanse® cloth package instructions, and pre-printed handouts. Medline staff members will be available to assist if any questions arise from the healthcare providers during the course of the study. ReadyBath Intelligent Warmers (Appendix 11.1), which are used to keep the ReadyCleanse® cloths warm to enhance patient comfort, will be placed on the floors. Positioning of the ReadyBath Warmers will be jointly determined by Medline and each of the four study hospital IPs in conjunction with the NorthShore research staff; in some instances it may not be possible to place ReadyBath Warmers due to spatial constraints. As the warming of the product is not essential to its efficacy, this is not anticipated to present a problem in interpreting the study results.

6.2. Wash-in Period/Educational Intervention

The first six weeks of the study will be dedicated to ensuring all staff members who perform catheter care and maintenance are adequately trained on the process of using the ReadyCleanse® cloths and to gain experience in using them. Training will take place as described in 6.1. Once trained, staff will begin using ReadyCleanse® cloths and the standardized cleansing process for perineal care. During this period, no data will be collected pertaining to the efficacy of the intervention.

6.3. Intervention with ReadyCleanse®

Following the Educational Intervention, all hospital staff will be sufficiently trained in the use of ReadyCleanse® and the 42,672-catheter day-data collection period will begin. All participants requiring an IUC during their hospital stay will be considered enrolled in the study, and assigned a subject number. A master list linking subject numbers to patient name and medical record number will be maintained in a secure electronic database by the staff at NorthShore University Health System. This database will be maintained at the research site at all times.

During this time, use of ReadyCleanse® cloths and the standardized cleansing procedure will be the standard-of-care for catheter care and maintenance; patients will undergo routine perineal care for a minimum of twice per day and after each incontinent episode. The specific cleansing procedure for ReadyCleanse® is provided in Appendix 11.1.2.

6.3.1. Data Collection Procedures

6.3.1.1. Prospective Data Collection

During the data collection period, the Study Coordinator at the university health system will extract the relevant data from all patients who had an IUC during their hospital admission. Data will be extracted from the participant's Electronic Health Record (EHR) in Epic (www.epic.com) and transferred into both an Excel spreadsheet and a paper Case Report Form (CRF) by NorthShore study staff; a sample of the CRF is provided in Appendix 11.5. The following data will be collected for each participant enrolled in the study and entered into his/her CRF:

Demographic and general health information

- Age
- Gender
- Race
- Hospital within NorthShore system
- Hospital room during stay

Catheter related data

- Admission date
- Indication for IUC
- Date catheter was placed
- Date catheter was removed
- Number of catheter days
- Development of CAUTI
- Adverse Event or Serious Adverse Event
    - Yes/No
        - If Yes, prompt to complete paper AE/SAE form

CAUTI data

- Additional data will be collected on each participant who develops a CAUTI, including a urine culture. The full list of additional data collected on patients with a CAUTI is available sample CRF found in Appendix 11.5. This additional data collection is part of the standard practice within the NorthShore University Health System for anyone who develops a CAUTI.

6.3.1.1.1. CAUTI Definition

Patients will be deemed to have had a CAUTI using the criteria currently defined by the Centers for Disease Control (CDC), which can be found here: https://www.cdc.gov/nhsn/pdfs/pscmanual/7psccauticurrent.pdf

6.3.1.1.2. Urine culture

Quantitative urine cultures will be obtained from patients with IUC in-situ for at least 5-7 days. Twenty randomly selected IUC specimens will be obtained during the Educational Intervention period and another 20 samples during the study. Urine will be collected by the research coordinator from the IUC and transported to the research microbiology laboratory at NorthShore in a sterile, leak-proof container labeled with patient's study ID number. 1ul and 10ul loops will be used to streak a blood agar plate and MacConkey agar plate. Both plates will be incubated at 35°C in a non-CO_2 incubator and inspected for growth of bacteria after 18-24 hours of incubation. Individual bacterial colonies will be identified using Matrix Assisted Laser Desorption/Ionization-Time of Flight (MALDI-TOF) mass spectrometry and quantity of organism calculated. The CRF specific to this portion of the study is provided in Appendix 11.6. Finally, all participants who develop a CAUTI will have a urine culture performed to determine the causative bacteria and susceptibility pattern.

6.3.1.1.3. HCP Feedback

Information pertaining to HCP acceptance of the product will be collected online in Survey Monkey; a link to the survey will be provided via e-mail. Appendix 11.2 provides the form that will be entered into Survey Monkey for HCPs to complete. This will take place approximately in Month 3 of the study. All participating HCPs will be sent an email (Appendix 11.7) asking them to fill out an anonymous survey. The survey will be used to gain feedback from HCPs on the use of the product. It will be stressed that the

survey is anonymous and the HCPs decision whether or not to participate will not affect their current or future status at NorthShore. Only one feedback survey questionnaire will be completed per HCP regardless of the amount of care provided.

6.3.1.2. Retrospective Data Collection

The CAUTI rate during the retrospective portion of the study is already collected; this rate will be compared to the CAUTI rate during the prospective portion of the study. Additionally, the CRF in 11.5 will be completed for any patient who had an IUC and developed a CAUTI in the similar number of catheter days as that of the intervention period, prior to the six-week training period. . These data will be extracted from the participants EHR from the sites electronic data warehouse and entered onto the CRF in the same fashion as the prospective data collection. Data from CRFs for participants in the retrospective arm will be transferred to the same electronic database as the prospective data for statistical analysis.

6.3.2. Compliance with Intervention/Auditing

During the study, random on-site observations of perineal care will be performed by research study coordinators. The study coordinators will directly observe the performance of perineal care for 10 IUC patients at each hospital and adherence to the written protocol will be determined. For sites that have adherence rates below the 90th percentile, we will acquire an additional 10 more observations to reduce the effect of sampling error. Observations of perineal care will be performed during the first seven months of the data collection portion of the intervention, with a goal that all audits are complete within three months.

Due to extension of the study, the second (and subsequent, if required) set of audits will be executed by Medline Industries, Inc., in corroboration with NorthShore University Health System.

7. SAFETY ASSESSMENT

Given that the intervention in this study utilizes a low-risk product in accordance with its intended use and labeling, the safety risk to participants is minimal. Participants will be routinely monitored as they will be in the acute-care setting during the study, and will have their perineum and meatus inspected regularly for any signs of irritation. Adverse Events, as described below, will be collected for all participants and reviewed by the PI.

7.1. Adverse Events and Serious Adverse Events

During this **st**udy, the ReadyCleanse® cloth will be used in accordance with its labeling and intended use, presenting minimal risk to the participants. Consequently, the definitions for Adverse Events and Serious Adverse Events listed below will be used in the course of this study.

7.1.1. Definition of Adverse Events (AE)

If the condition of the participant's perineal skin and soft-tissue deteriorates *unexpectedly,* per the PI's interpretation, or if there is a new condition that the PI determines is not related to the baseline health condition *but could be* related to the use of the study product, it will be recorded as an AE.

7.1.2. Definition of Serious Adverse Events (SAE)

Any AE that results in any of the following outcomes: Death, life-threatening event, requires or prolongs inpatient hospitalization, results in persistent or significant disability or incapacity, results in a congenital anomaly or birth defect, results in an important medical or event or requires medical intervention to prevent one of these outcomes. All AEs that are identified as per 7.1.1 will have Investigator determination of SAE and will have documented appropriate medical care for the event available in the EHR.

7.2. Classification of an Adverse Event

7.2.1. Severity of Event

The severity of all adverse events will be graded on a scale of one through five according to the most recent version of the Common Terminology Criteria for Adverse Events guideline, where each grade represents a unique clinical description based on this general guideline:

- **Grade 1:** Mild; asymptomatic or mild symptoms; clinical or diagnostic observation only; intervention not indicated.
- **Grade 2:** Moderate; minimal, local or noninvasive intervention indicated; limited age-appropriate instrumental activities of daily living.
- **Grade 3:** Severe or medically significant but not immediately life-threatening; hospitalization or prolongation of hospitalization indicated; disabling; limiting activities of daily living involving self-care.
- **Grade 4:** Life threatening consequences; urgent intervention indicated
- **Grade 5:** Death related to AE

7.2.2. Relatedness of Event

All adverse events (AEs) must have their relationship to study intervention assessed by the PI who examines and evaluates the participant based on temporal relationship and his/her clinical judgment. The degree of certainty about causality will be graded using the categories below.

- **Unrelated**: This category applies to those adverse events which, after careful consideration, are clearly and incontrovertibly due to extraneous causes (disease, environment, etc.)
- **Possible**: This category applies to those adverse events for which, after careful medical consideration at the time they are evaluated, a connection with the Investigational Product administration appears unlikely but cannot be ruled out with certainty.
- **Probable**: This category applies to those adverse events which, after careful medical consideration at the time they are evaluated, are felt with a high degree of certainty to be related to the Investigational Product.
- **Definite**: This category applies to those adverse events which, after careful consideration, are clearly and incontrovertibly due to the Investigational Product.

7.2.3. Expectedness

The PI will be responsible for determining whether an 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. One AE that may occur during the study is mild irritation at the cleansing site.

7.2.4. Relatedness of Event Time Period & Frequency of Event Assessment and Follow-Up

All AEs and SAEs will be captured on the appropriate reporting form. 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 and SAEs as defined in section 7.1 occurring while on study must be documented appropriately regardless of relationship. All AEs will be followed to adequate resolution.

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. Changes in severity will necessitate a new CRF to document the new level of severity. AEs characterized as intermittent require documentation of onset and duration of each episode.

The PI will record all reportable events with start dates occurring any time after the start of the Educational Intervention through the end of the study or resolution of the AE/SAE, whichever is later.

7.2.5. Adverse Event Reporting

All non-serious AEs as per 7.1.1will be recorded on the Adverse Event form (Appendix 11.3), and reported to the IRB as per IRB reporting requirements.

7.2.6. Serious Adverse Event Reporting

The study investigator shall complete an SAE Form (Appendix 11.4) and submit to the study sponsor and to the reviewing Institutional Review Board (IRB) as soon as possible, but in no event later than 48 hours after the investigator first learns of the effect. The study sponsor is responsible for conducting an evaluation of the SAE and shall report the results of such evaluation to the Food and Drug Administration (FDA) and to all reviewing IRBs within 10 working days after the sponsor first receives notice of the effect. Thereafter, the sponsor shall submit such additional reports concerning the effect as FDA requests.

8. STATISTICAL CONSIDERATIONS

8.1. Sample Size Determination

The primary outcome will be measured as number of CAUTIs per 1000 catheter days. Given this type of data, a Poisson regression model will be used to model CAUTI incidence, with the dichotomous predictor variable pertaining to the intervention serving as the critical test for the hypothesis. To determine how many catheter days would be needed to adequately power the study, a power analysis was conducted using G*Power 3.1.9.2, with the following parameters:

- **Baseline CAUTI Rate**: 0.89/1000 catheter days (entered as .00089/day)
  - Baseline rate reflects CAUTI rate for NorthShore University Health System in 2016.
- **Hypothesized reduction in CAUTI**: 50%
- **Alpha**: 0.05 (one-tailed)
- **Power:** 80%
- **Mean Exposure**: 1 day (the actual exposure will vary by participant, but entering 1 day can be used to determine number of catheter days rather than number of participants).
- **R^2 other X:** 0%
- **X distribution**: Binomial
- **X parm Π**: 0.5

The result from this analysis indicated that 83,426 catheter days would be needed to adequately power the study at 80%. NorthShore Hospital University System averages approximately 32,000 catheter days annually, which can be reduced to 2,667 per month. Thus, total number of catheter days required for collecting retrospective data and prospective data would be 85,344 catheter days. The 42,672 (85,344-catheter days/2) catheter days of prospective data in comparison to a similar number of catheter days of retrospective data will provide data required for conducting the analysis.

8.2. Statistical Analysis

8.2.1. Primary Endpoint

The primary endpoint will be the comparison of CAUTI rates during the intervention period compared to the retrospective control period. This will be tested by modeling the likelihood of developing a CAUTI as a function of intervention status using Poisson regression, with the number of catheter days serving as the offset. A significant value for the parameter representing the intervention will serve as the test for the impact of the intervention. Formally, the hypothesis is:

$H_{0:}\ \beta_1 \geq 0$
$H_1: \beta_1 < 0$

Where β_1 represents the beta-parameter for the dichotomous predictor variable pertaining to the intervention, with the retrospective control group coded as 0 and the prospective intervention group coded as 1.

The 95% confidence interval for the incidence rate ratio will also be presented.

Given that the retrospective and prospective portions of the study cover a significant period of catheter days, it is not expected that the two groups will vary on demographic variables or other key variables such as length-of-time the catheter is inserted, hospital unit during admission, etc. Thus, testing the incidence rate ratio will be sufficient for determining if a there is a significant difference in the CAUTI rate between the two time periods.

In the event of over-dispersion of the data, negative binomial regression may be implemented to account for the over-dispersed data. Missing data on the primary endpoint is not anticipated to be a concern, given that government reporting requirements dictate that CAUTI rates be reported, which only requires an analysis of catheter days and number of CAUTIs. Participants who are discharged with an IUC or who expire during their admission will have their catheter days as well as any infections that occurred prior to discharge or death counted in the analysis.

8.2.2. Secondary Endpoint

The secondary endpoint will be an analysis of bacteria in the urine, comparing a random sub-sample of the study sample during the intervention to a random sub-sample of participants during the beginning of the Education Intervention. Samples of urine from the Education Intervention and those taken during the intervention will be compared in two ways. The number of individual bacterial species isolated from the cultures will be compared between the two groups, as well as cfu/ml of bacteria present, which will be quantified as follows:

1. No bacterial growth
2. 100-500 cfu/ml
3. 500-10,000 cfu/ml
4. 10,000-50,000 cfu/ml
5. 50,000-100,000 cfu/ml
6. ≥100,000 cfu/ml

Parametric or non-parametric measures, depending on the normality of the distribution, will be used to compare the two groups' mean values on these two measures, with the hypothesis that use of ReadyCleanse® may reduce the amount of bacteria in the urine, providing a mechanistic account of how it may reduce CAUTI.

8.2.3. Exploratory Endpoints

8.2.3.1. Healthcare Professional Feedback

The data analysis for the healthcare professional feedback survey in Appendix 11.2 will be descriptive in nature. Survey responses will be assigned a numeric value, with "strongly disagree" = 1, "disagree" = 2, and so on. Mean values for each response will be calculated, and sub-analyses will be conducted stratifying the values by education, experience and age. These data will be collected approximately in Month 3 of the study. At the completion of the data collection, these data will be analyzed and may be presented externally. No other data from the study will be analyzed and no changes will be made to the study based on this feedback without a protocol amendment. As HCP feedback on the device in this setting is independent of whether the intervention reduces CAUTI, analyzing these data does not create an issue of multiple comparisons for the primary endpoint and therefore does not require *p*-value adjustment.

8.2.3.2. Financial Analysis

In order to investigate any financial savings from the use of ReadyCleanse®, we will undertake a financial analysis taking into account savings from avoided CAUTIs offset by the increased cost in using the ReadyCleanse® product and warmer as compared to soap-and-water. Government data on the estimated cost of a CAUTI will be used for these calculations.

9. SUPPORTING DOCUMENTATION AND OPERATIONAL CONSIDERATIONS

9.1. Regulatory, Ethical, and Study Oversight Considerations

9.1.1. Informed Consent Process

The intervention used in this study, ReadyCleanse® Meatal & Perineal Cleansing Cloth, is a currently marketed device with labeling and indication for use in meatal and perineal care as part of the standard catheter care and maintenance that occurs for all patients with urinary catheters. Consequently, this study entails minimal risk to the participant. Therefore, participant consent will not be obtained for this study. The addition of urine collection does not necessitate informed consent either, as the urine will be collected from the Foley catheter bag, which otherwise would have been discarded. As described in Section 9.1.3, all measures for protecting participant privacy and confidentiality will be in place.

9.1.2. Study Discontinuation and Closeout

9.1.2.1 Study Discontinuation

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 the PI, sponsor, and IRB. If the study is prematurely terminated or suspended, the Principal Investigator (PI) will promptly inform the Institutional Review Board (IRB) and sponsor and will provide the reason(s) for the termination or suspension.

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

- Determination of unexpected, significant, or unacceptable risk to participants as determined by Adverse Event review
- Insufficient compliance to protocol requirements
- Data that are not sufficiently complete and/or evaluable

The study may resume once concerns about safety, protocol compliance, and data quality are addressed, and satisfy the sponsor and/or IRB.

9.1.2.2 Study Closeout

Upon completion of the study, Medline and/or its designees will notify the site of closeout related procedures and will coordinate with the site the return of equipment and/or any unused ReadyCleanse® cloths. Medline CRA will communicate closely with the Investigator at that time point and will review all close out steps and materials. All study data, related study documents, unused study product, and warmers will be returned to the Sponsor. Sponsor will provide the facility with a summary of the activities and findings after the final analysis of the data has been completed. The site will also notify the IRB that the study has completed.

9.1.3. Confidentiality and Privacy

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 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 study data and study records will be managed and stored in accordance with the site's HIPAA compliant policies on data storage and security. All electronic transmission of data will adhere to HIPAA Security Rules.

The study monitor, other authorized representatives of the sponsor, representatives of the Institutional Review Board (IRB), and 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.

A master list linking subject numbers to patient name and medical record number will be maintained in a secure electronic database by the staff at NorthShore University Health System. This database will be maintained at the site at all times. The Sponsor may need access to the master list linking subject numbers to patient name in the event of an AE or other suitable event. Please note that this list will only contain information on the patients in the study who have indwelling urinary catheters; this does not refer to NorthShore employees participating in the healthcare worker survey described in Section 6.3.1.1.3.

Participants of the healthcare worker survey will not be assigned a subject ID. They will be emailed a link to the survey provided in Section 11.2 and asked to participate; as indicated in Section 11.7, this email will convey that participation is strictly voluntary and no repercussions will occur should they choose not to participate. The only information provided to the Sponsor regarding the NorthShore employees will be that which they provide in response to the survey in 11.2. All of this information is de-identified to ensure privacy and confidentiality.

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 at least a period of two years, or longer if dictated by the reviewing IRB, Institutional policies, sponsor requirements, or ICH/GCP and FDA requirements. The PI will agree to notify sponsor of any intent to move or destroy these documents.

Study participant research data, which is for purposes of statistical analysis and scientific reporting, will be maintained at the research sites. The research site will export summary files for statistical analysis to Medline Industries, Inc. These files 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 demographic data available on each participant (age, gender, and general clinical measures) will be generic enough as to not reveal the participant's identity. The study data entry and study management systems used by clinical sites and by Medline Industries, Inc. research staff will be secured and stored in an access controlled locked drawer (any paper forms) and password protected (electronic records). At the end of the study, all study databases that are not already de-identified will be de-identified and archived at the Medline Industries, Inc.

9.1.4. Key Roles and Study Governance

Principal Investigator
Kamaljit Sandhu Singh, MD, D(ABMM), Director, Microbiology & Infectious Disease Research
NorthShore University Health System
2650 Ridge Ave, Walgreens SB525 Evanston, IL 60201
847-733-5093
KSingh@northshore.org

9.1.5. Safety Oversight

Given that this is a post-market study on a device used in accordance with its labeling, there is minimal safety risk to participants. Consequently, the PI will review AEs and SAEs regularly and make any necessary safety determinations as needed.

9.1.6. Clinical Monitoring

The CRA will confirm that the rights and well-being of subjects are protected, the reported trial data are accurate, complete, and verifiable from source documents, and will confirm the conduct of the trial by the Investigator and site is in compliance with the protocol, GCP, and regulatory requirements as well as any applicable institution or IRB and federal or local processes. Monitoring will occur at minimum every two months during the study duration or more frequently if:

- The volume or quality of data is large or there is a backlog of review due to unexpected issues
    - This would also include any large volume of CRFs to be reviewed
- The site compliance with the protocol or compliance with expected ICH/GCP and regulatory requirements is lacking or there are continuing unresolved compliance issues
- There are unexpected AE/SAE or subject safety concerns noted
- There are any unexpected inconsistencies with study product management

- There is a request for more frequent monitoring by the site
- Any mutually agreeable situation as determined by NorthShore and Medline

The frequency of routine monitoring may be increased to a longer interval after three monitoring cycles if on-site situations support this change. CRA will discuss this with Medline Associate Director or Clinical Manager and will inform the PI prior to implementation.

Monitoring activities will include subject eligibility, source data review, CRF completion verification, product accountability, site continued suitability, PI study oversight, compliance, etc. and all general monitoring activities as outlined in FDAs Code of Federal Regulations and ICH/GCP guidelines that guide that activity.

Medline may, on occasion, contract with external CROs to provide CRA services and those CRAs are authorized to act on behalf of Medline.

It is expected that the site will be compliant with any institutional SOPs during the execution of the protocol and evidence of that compliance should be readily documented and verifiable by the CRA.

The CRA will generate an internal Medline visit report that will be filed with the Medline trial master file and will provide the PI a detailed follow-up letter after each monitoring visit that will outline the completed monitoring activities as well as any identified areas of concern and the expected/applicable corrections needed. Medline reserves the right to perform audit of the study activities – either routine or for-cause – as needed and may also perform clinical monitoring audit as well.

9.1.7. Data handling and Record Keeping

9.1.7.1 Data Collection and Management Responsibilities

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

All source documents of any kind (electronic, paper, etc.) should be completed in accordance with Good Documentation Practices (GDP) to ensure accurate interpretation of data. CRFs will be created for each subject for the prospective portion of the study. CRFs will be generated retrospectively only for patients that developed a CAUTI. The CRF for each subject will be populated from the subject's EHR. The CRA will verify the data entered into the CRF with the site source regardless of the type of source. The site will be responsible for developing a written process that ensures the CRA is able view the source data.

Data from the CRFs will be entered by NorthShore study staff into a Microsoft Excel spreadsheet for statistical analysis. Data in the Excel database will be transferred to and analyzed with SAS, which allows for internal quality checks, such as automatic range checks, to identify data that appear inconsistent, incomplete, or inaccurate. Medline Industries, Inc. will be responsible for overseeing final data analysis and confirmation of results.

9.1.7.2 Study Records Retention

Study documents should be retained until at least two years have elapsed since the formal discontinuation of the study intervention or as required by any applicable FDA guidelines or for a longer period if required by local regulations. No records will be destroyed without the written consent of the sponsor, if applicable. It is the responsibility of the sponsor to inform the investigator when these documents no longer need to be retained. The Investigator is required to notify Medline if the location of the stored documents is changed after it is defined at the time of the Close Out Visit at study end.

9.1.8. Protocol Deviations

A protocol deviation is any noncompliance with the clinical trial protocol, International Conference on Harmonization Good Clinical Practice (ICH GCP), or Manual of Procedures (MOP) requirements. The noncompliance may be either on the part of the participant, 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 site investigator to use continuous vigilance to identify and report deviations on a routine basis. All deviations must be addressed in study source documents, and reported to Medline Industries, Inc. Protocol deviations must be sent to the reviewing Institutional Review Board (IRB) per their policies. The site investigator is responsible for knowing and adhering to the reviewing IRB requirements. A copy of the IRB reporting process for protocol deviations will be provided to the CRA by the site and will be filed with the site research materials related to the study.

9.1.9. Conflict of Interest Policy

The independence of this study from any actual or perceived influence 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.

9.2. Abbreviations

AE	Adverse Event
CAUTI	Catheter Acquired Urinary Tract Infection
CDC	Centers for Disease Control
CFR	Code of Federal Regulations
CFU	Colony Forming Units
CHG	Chlorohexidine gluconate
CMS	Center for Medicaid & Medicare Services
CRA	Clinical Research Associate
CRF	Case Report Form
EHR	Electronic Health Record
FDA	Food and Drug Administration
GCP	Good Clinical Practice
HAI	Hospital Acquired Infection
HCP	Healthcare Professional
HIPAA	Health Insurance Portability and Accountability Act
ICH	International Conference on Harmonization
IRB	Institutional Review Board
IUC	Indwelling Urinary Catheter
PI	Principal Investigator
SAE	Serious Adverse Event

10. REFERENCES

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9. Repeat Insult Patch Test with Re-Challenge Test (GCP), Final Report CRL104513, March 19, 2014.
10. Pediatric Safety in Use Testing (GCP), Final Report CRL2016-0846, November 30, 2016.

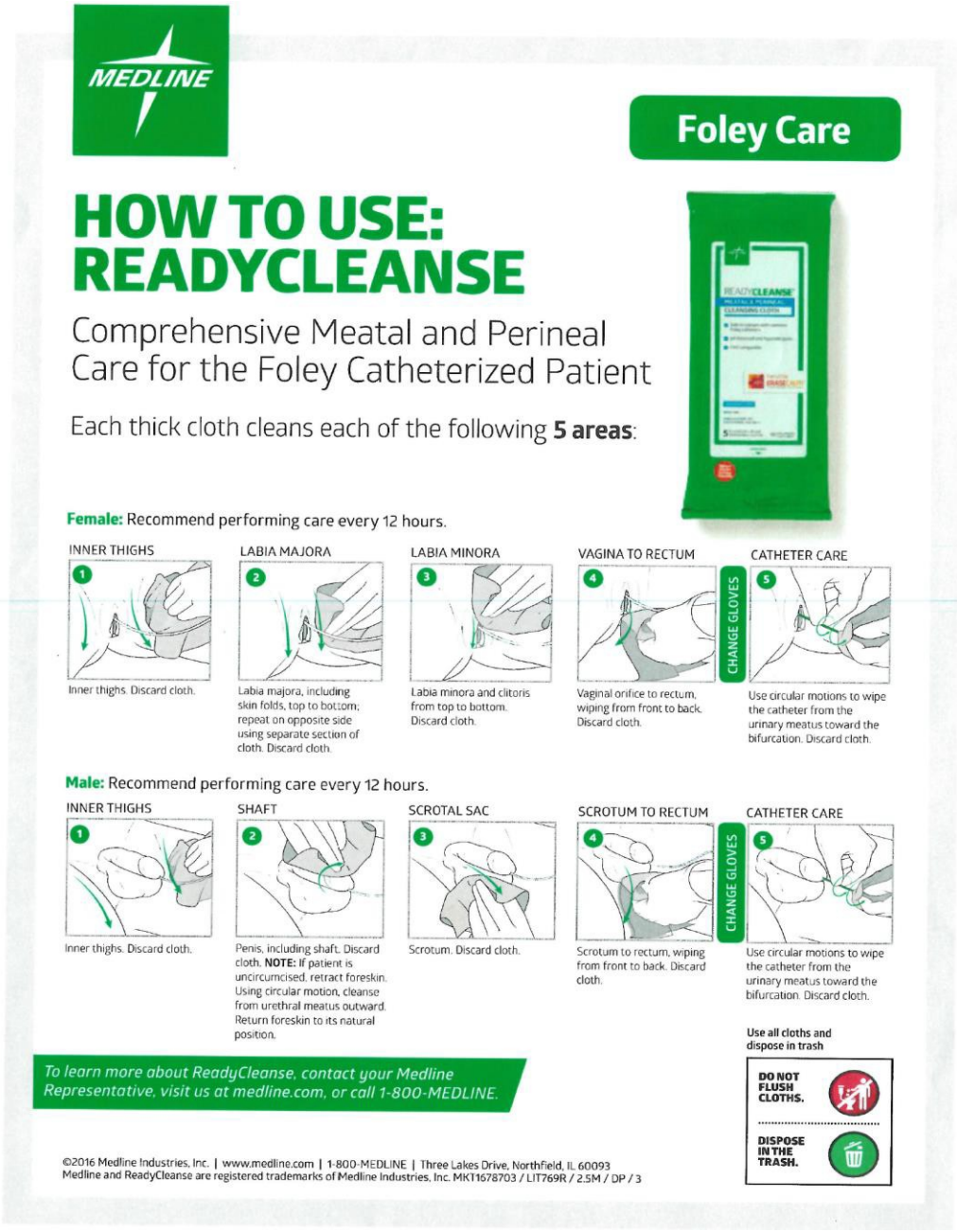
11. APPENDIX

11.1. CLINICAL STUDY PRODUCT

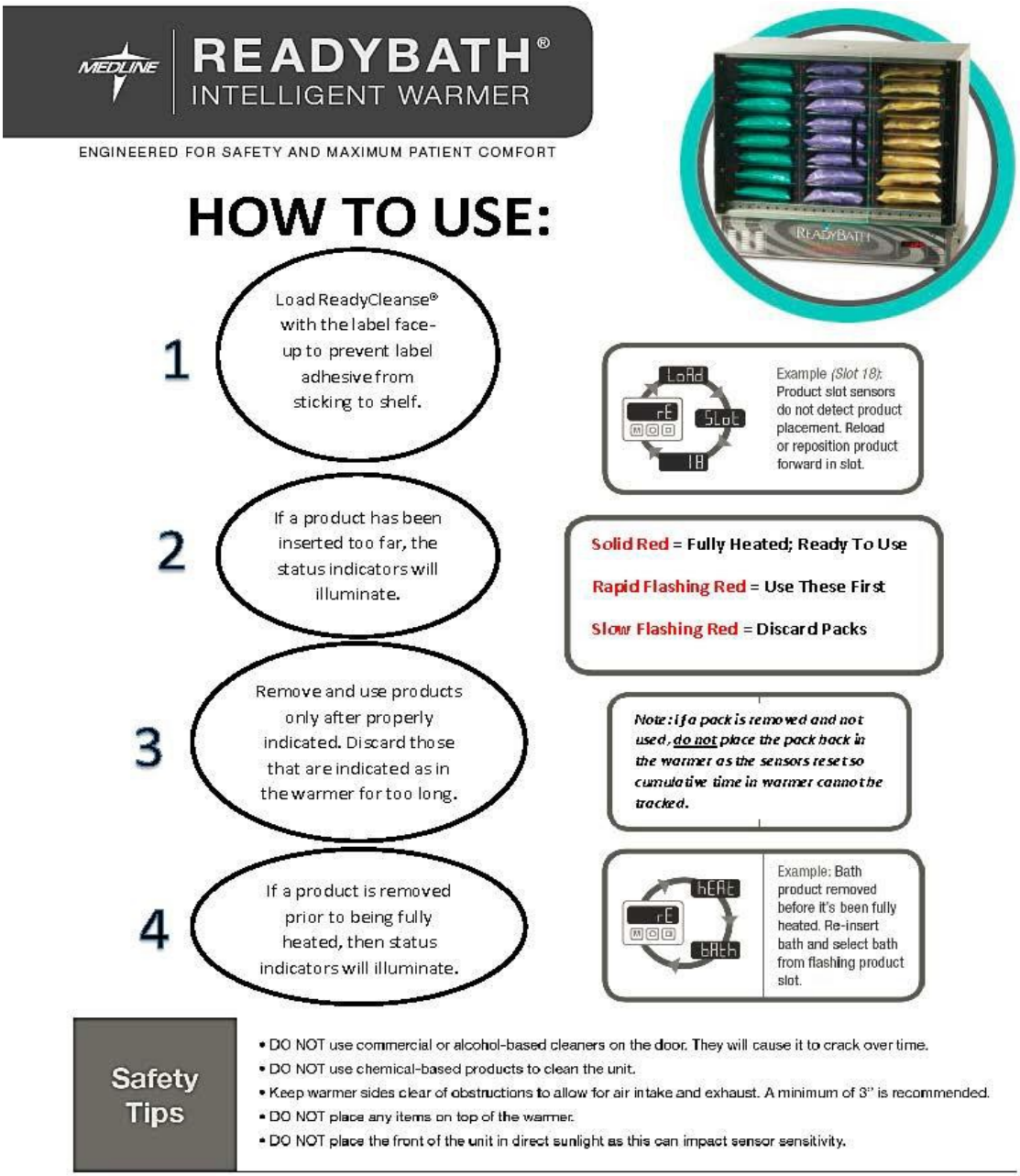
Product Information	
Device Name:	ReadyCleanse® Meatal and Perineal Cleansing Cloth
Ingredients:	Water (Aqua), Cocamidopropyl PG-Dimonium Chloride Phosphate, Glycerin, Phenoxyethanol, Benzoic Acid, Dehydroacetic Acid, Ethylhexyglycerin, Disodium EDTA, Polysorbate 20, Sodium Citrate, Aloe Barbadensis Leaf Juice, Simethicone
Item Number(s):	MSC095311
Manufacturer:	Medline Industries, Inc.

11.1.1. Clinical Product Labeling

11.1.2. ReadyCleanse® Cloth Standardized Cleansing Protocol



11.1.3. ReadyCleanse® Cloth ReadyBath Intelligent Warmer



11.1.4 READYBATH® INTELLIGENT WARMER

How to use: ReadyBath® Intelligent Warmer

Engineered for safety and maximum patient comfort.

1. Load product with the label face up to prevent label adhesive from sticking to the shelf.
2. Place pack near front of slots for proper sensor detection.
3. Remove products only after they display a green solid light, indicating it is fully heated.

ReadyBath Warmer Status Indicator

What the lights mean

- **Heating** – Solid Red LED – Packs have not yet reached the required temperature.
- **Heated** – Solid Green LED – Packs have reached the required temperature and are ready to use.
- **Use First** – Green LED Flashes – Pack has been in the warmer for 84 hours. These packs should be used first.
- **Discard** – Red LED Flashes – Pack has been in the warmer longer than 250 hours and should be discarded.

ReadyBath Warmer Safety Tips

- DO NOT use commercial or alcohol based cleaners on the door. They will cause it to crack over time.
- DO NOT use chemical-based products to clean the unit.
- Keep exterior warmer sides clear of obstructions to allow for air intake and exhaust. A minimum of 3 inches is recommended.
- DO NOT place any items on top of the warmer.
- DO NOT place the front of the unit in direct sunlight, as this can impact sensor sensitivity.
- Read instructions for warnings, care and maintenance.

11.2. HCP Product Feedback Questionnaire

Healthcare Provider Feedback ReadyCleanse

1. Demographics

1. I am a

- ◯ Nurse
- ◯ Aide
- ◯ Other (please specify)

2. Sex

- ◯ Male
- ◯ Female

3. Education

- ◯ High School
- ◯ Junior College
- ◯ Bachelor's Degree
- ◯ Graduate School
- ◯ Other (please specify)

4. Age (in years)

Healthcare Provider Feedback ReadyCleanse

2. Product Feedback

5. Specify your agreement with the following.

	Strongly Disagree	Disagree	Agree	Strongly Agree
The product's peri-care and catheter care protocol was easy to follow and perform.	○	○	○	○
The product was easy to use.	○	○	○	○
It would be easy to train another clinician using the product's meatal and perineal care protocol.	○	○	○	○
Using the product saved me time performing meatal and perineal care.	○	○	○	○
I thought the product cleaned as well as my previous method.	○	○	○	○
I found this product to be acceptable.	○	○	○	○
I would prefer to use ReadyCleanse cloths versus standard of care.	○	○	○	○

11.3. Adverse Event Form

Site/Subject Information	
Study Sponsor: Medline Industries, Inc.	Protocol Number: R17-019
Site Number:	Principal Investigator:
Subject Number:	

Adverse Event Information

#	Adverse Event:		Start Date: DD-MMM-YYYY	Stop Date: DD-MMM-YYYY	Frequency:	Severity:	Outcome:	IP Lot #:	Relation-ship to IP:	Action Taken with IP:	SAE Status:	Comment:	Form Completer nitials and Date	Investigator nitials and Date
		☐ Expected ☐ Unexpected									☐ Yes* ☐ No			
		☐ Expected ☐ Unexpected									☐ Yes* ☐ No			
		☐ Expected ☐ Unexpected									☐ Yes* ☐ No			

Frequency:	Severity:	Outcome:	Relationship to IP:	Action Taken with IP:	SAE Status
1 = Isolated 2 = Intermittent 3 = Continuous	1 = Grade 1; mild 2 = Grade 2; moderate 3 = Grade 3; severe 4 = Grade 4; life-threatening 5 = Grade 5; death	1 = Resolved, with no sequelae 2 = Resolved, with sequelae 3 = Unresolved 4 = Death 5 = Unknown	1 = Not Related 2 = Possible 3 = Probable 4 = Definite	1 = None 2 = Modified 3 = Interrupted 4 = Discontinued	Death, life-threatening, prolonged hospitalization, significant disability/anomaly, medical intervention to prevent a serious outcome

***In the event of a Serious Adverse Event, please complete the Serious Adverse Event Report form and send to Medline Industries, Inc. within 48 hours of awareness**

Printed name :_____ **Signature :**_____ **Date:** _____

11.4. Serious Adverse Event Form

As soon as possible, but in no event later than 48 hours after becoming aware of the Serious Adverse Event.

PLEASE DO ALL THE FOLLOWING:

- **E-MAIL THE COMPLETED REPORT(S) TO: ClinicalOperations@medline.com**
- **Contact your study team CRA – See *Medline Study Team Contact List* in your Study Binder**
- **Alert the listed name in your protocol in the *Serious Adverse Event Reporting* section**
- **Add the Event details to the *AE Log* and update throughout the Event**
- **Contact IRB as applicable**

Site Information		
Study Sponsor: Medline Industries Inc.	**Protocol Number: R17-019**	
Site Number:	**Principal Investigator:**	
Site Address:	**Report Type:** *(Check applicable type and submit a new form with any updates)*	☐ **Initial**
		☐ **Follow-up number** _____
		☐ **Final**
Form Completed By:	**Title:**	
Telephone:	**E-mail**:	

Serious Adverse Event Information			
Subject Number:	**Subject Initials:**	☐ **N/A**	
Age:	**Gender:**	☐ **Male**	☐ **Female**
Investigational Product:			

Event Description: *(Please include a detailed description of the event in question, including the results of any laboratory/diagnostic imagery testing)*		
Site Notification of the Event:	**Date Notified:**	**Time Notified:**
	Method of Notification:	
Event Start/Stop:	**Start Date:**	**Stop Date**: ☐ **Ongoing**
Event Qualifiers: (Check all that apply)	☐ **Death**	☐ **Required Intervention to Prevent Permanent Impairment or Damage (Device)**
	☐ **Life-Threatening**	☐ **Disability or Permanent Damage**
	☐ **Hospitalization - Initial or Prolonged**	☐ **Congenital Anomaly/Birth Defect**
	☐ **Other Serious Important Medical Event**:	
Relevant Medical History:		

Concomitant Medication/Device History: *(Please include historical information such as medication/device name, dosage, frequency, route, start date, etc.)*

Relationship to Investigational Product (IP):	☐ **Not Related (event definitely not related to IP, as judged by the Principal Investigator)**
	☐ **Possibly Related (event maybe related to IP, as judged by the Principal Investigator)**
	☐ **Related (event definitely related to IP, as judged by the Principal Investigator)**
Action Taken with Investigational Product:	☐ **Discontinued- Please Provide Date:**
	☐ **Interrupted- Please Provide Date:**
	☐ **None**
Comments:	

List of documents attached in support of the submission: ☐ **N/A**	

Confirmation of Receipt: **SECTION TO BE COMPLETED BY MEDLINE INDUSTRIES INC.**	
Date Received:	**Time Received:**
Received By:	**Title:**

11.5. Case Report Form (CRF)

R17-019 Case Report Form			**Completed by:** _____
Demographic Information			
1. Participant Number:	2. Age:	3. Sex: Male ❒ Female ❒	4. Race (may select more than one): Black ❒ White ❒ Asian ❒ Hispanic ❒ Other ❒
5. Hospital: E: ❒ G: ❒ S: ❒ H: ❒		6. Room Number:	

Study Data	
1. Admission Date: (DD-MMM-YYYY)	
2. Date of catheter insertion (DD-MMM-YYYY)	
3. Date of catheter removal (DD-MMM-YYYY)	
4. Number of catheter days:	
5. Indication for catheter:	Open perineal wound: ❒ Urinary obstruction/retention: ❒ Pre- and Post-operative catheterization: ❒ Complicated Urologic procedure: ❒ Accurate measurement of urine output: ❒ Other: ❒
6. Did participant develop a CAUTI? (If yes, complete back side of form)	Yes: ❒ No: ❒
7. Did participant experience an AE or SAE (if yes, complete appropriate AE/SAE form)	Yes: ❒ No: ❒

Additional Data on Participants who Developed a CAUTI	
1. Date of CAUTI: (DD-MMM-YYYY)	
2. Patient arrived from:	Home: ❒ Hospital: ❒ LTCF: ❒
3. Primary admission diagnosis:	
4. Did reason for catheter insertion meet CDC insertion criteria?	Yes: ❒ No: ❒
5. Did patient have fever > 100.4°F twice within 48 hours ?	Yes: ❒ No: ❒

6. Was patient's white blood cell count ≥ 12,000?	Yes: ❒ No: ❒
7. Did patient have flank pain?	Yes: ❒ No: ❒
8. Did patient have dysuria or frequency after catheter removal?	Yes: ❒ No: ❒
9. Date of urine culture (DD-MMM-YYYY)	
10. Reason for urine culture	
11. Did reason for urine culture meet criteria to take culture?	Yes: ❒ No: ❒
12. What organisms were identified from culture?	
13. What antibiotics were prescribed?	
14. Hand hygiene compliance for unit	

11.6. Case Report Form: Urine Sub-Analysis

R17-019 Case Report Form: Urine Sub-Analysis			**Completed by:** _____
Demographic Information			
1. Participant Number:	2. Age:	3. Sex: Male ❒ Female ❒	4. Race (may select more than one): Black ❒ White ❒ Asian ❒ Hispanic ❒ Other ❒
5. Hospital: E: ❒ G: ❒ S: ❒ H: ❒	6. Room Number:		
Study Data			
7. Bacteria present in sample	❒ No growth ❒ 100-500 cfu/ml ❒ 500-10,000 cfu/ml	❒ 10,000-50,000 cfu/ml ❒ 50,000-100,000 cfu/ml ❒ > 100,000 cfu/ml	Organism(s) identified:

11.7. Sample E-mail Text for Questionnaire to NorthShore Employees

Subject: Survey Regarding NorthShore Quality Improvement Study to Reduce CAUTIs using the Medline ReadyCleanse® cloths

To whom it may concern:

If you are receiving this e-mail, you have currently used the ReadyCleanse® wipe within your institution. As a reminder you are using this product as part of a 17.5-month IRB approved, Quality Improvement (QI) project to reduce CAUTIs at NorthShore University HealthSystem. The number of CAUTIs during the study period with ReadyCleanse® wipes, will be compared to the number of CAUTIs prior to the study beginning. All patients with an indwelling catheter are considered part of the study.

The ReadyCleanse® package contains five individual cloths that correspond to a simple, five-step, cleansing protocol to help standardize the process of catheter care and maintenance at NorthShore. Upon completion of the use of this product, you will be asked to fill out an anonymous survey found at the corresponding link: https://www.surveymonkey.com/r/2KDRDZL. This survey will be used to gain feedback from healthcare professionals on the use of the product. Your decision whether or not to participate will not affect you current or future status at NorthShore. If you choose to complete this anonymous survey, you consent to participate.

Thank you for your participation! If you have any questions please feel free to reach out to Dr. Kamaljit Singh.

Medline Industries, Inc.
3 Lakes Drive
Northfield, IL 60093