



Active **B**athing to **E**liminate Infection Project

Backstage Tour
Coaching Call
April 19, 2016

Investigator Team



**Susan Huang MD MPH, Ed Septimus MD, Julia Moody MS, Jason Hickok MBA RN,
Ken Kleinman ScD, Robert A. Weinstein MD, Mary Hayden MD, John Jernigan MD MS**

ABATE Infection Project

Active Bathing to Eliminate Infection

Trial Goal

Evaluate if antiseptic bathing for all non-critical hospitalized patients and nasal ointment for MRSA carriers can reduce the burden of multi-drug resistant organisms and hospital-associated infections

Trial Design

- 2-arm cluster randomized trial
- 53 HCA hospitals and their adult non critical care units

Arm 1: Routine Care

- Routine policy for showering/bathing

Arm 2: Decolonization

- Daily CHG shower or CHG cloth bathing routine for all patients
- Mupirocin x 5 days if MRSA+ by history, culture, or screen

ABATE Coordinating Team

General Communications



Adrijana
Gombosev



Lauren
Heim

Rush University



Mary
Hayden



Karen
Lolans



Lena
Portillo



Jalpa
Patel Sarup

Laboratory Communication and Coordination



Julie
Lankiewicz



Katie
Haffenreffer



Lauren
Shimelman



Becky
Kaganov



Julia
Moody



Chris
Bushe

Data Coordinating Team

Harvard Team



**Taliser
Avery**



**Michael
Murphy**



**Ken
Kleinman,
Statistician**

HCA Team



**Caren
Spencer-Smith**



**Tyler
Forehand**

Enterprise Support

Stakeholder Support



**Jon
Perlin**



**David
Vulcano**



**Jane
Englebright**



**Jon
Foster**



**Chuck
Hall**

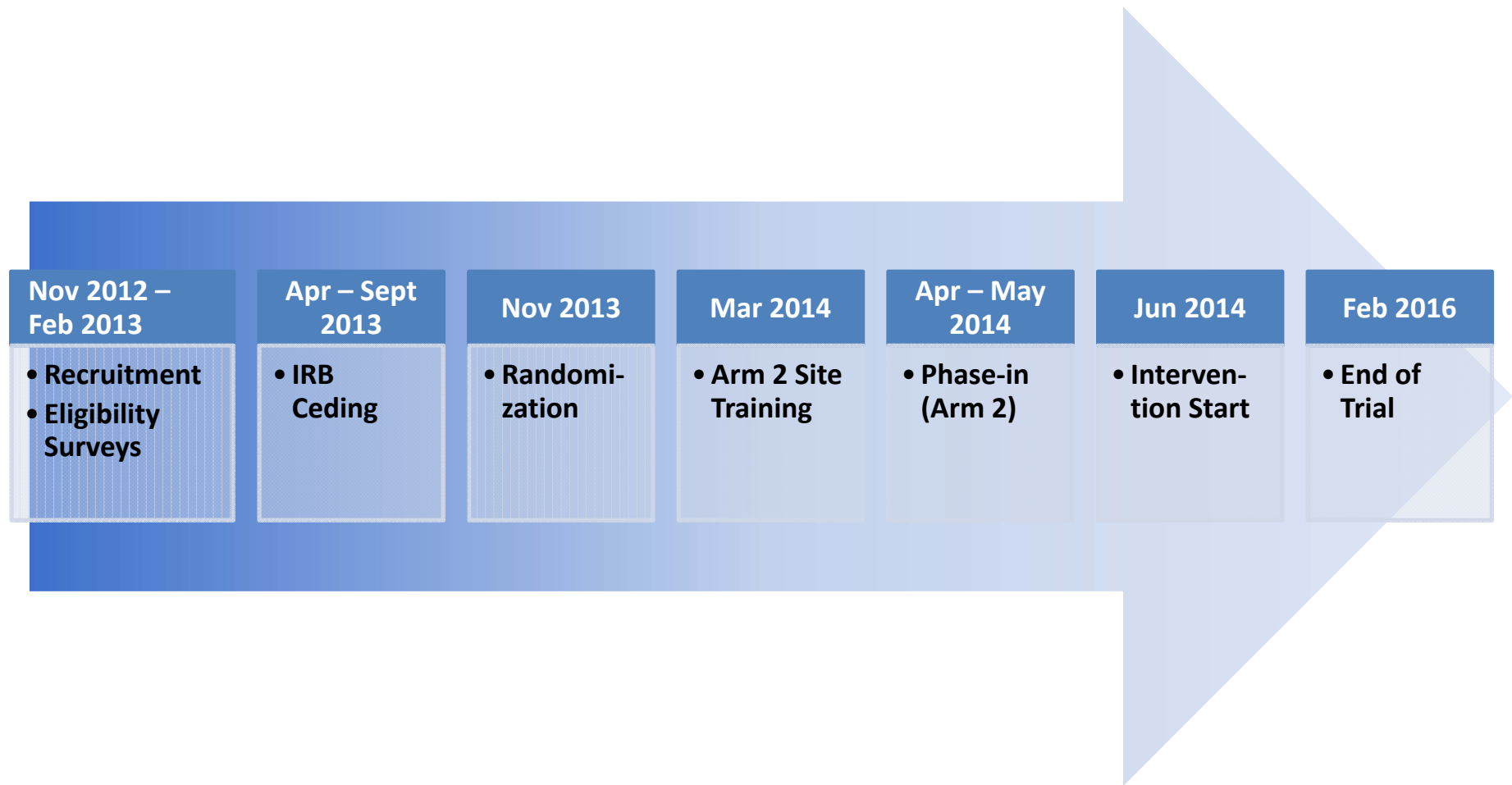
HCA Sectors of Involvement

- HCA Corporate Leadership
- Clinical Services Group
- Compliance and Regulatory Affairs
- Infection Prevention
- Quality
- Unit Directors and Managers
- Supply Chain
- Pharmacy
- Laboratory and Microbiology
- IT

Agenda

- Recruitment
- IRB Process
- Randomization
- Central Coordination
- On-Site Training
- CHG Compatibility
- Compliance
- Strain Collection
- Data Collection and Analysis of Outcomes
- Participant Commendations

Trial Timeline



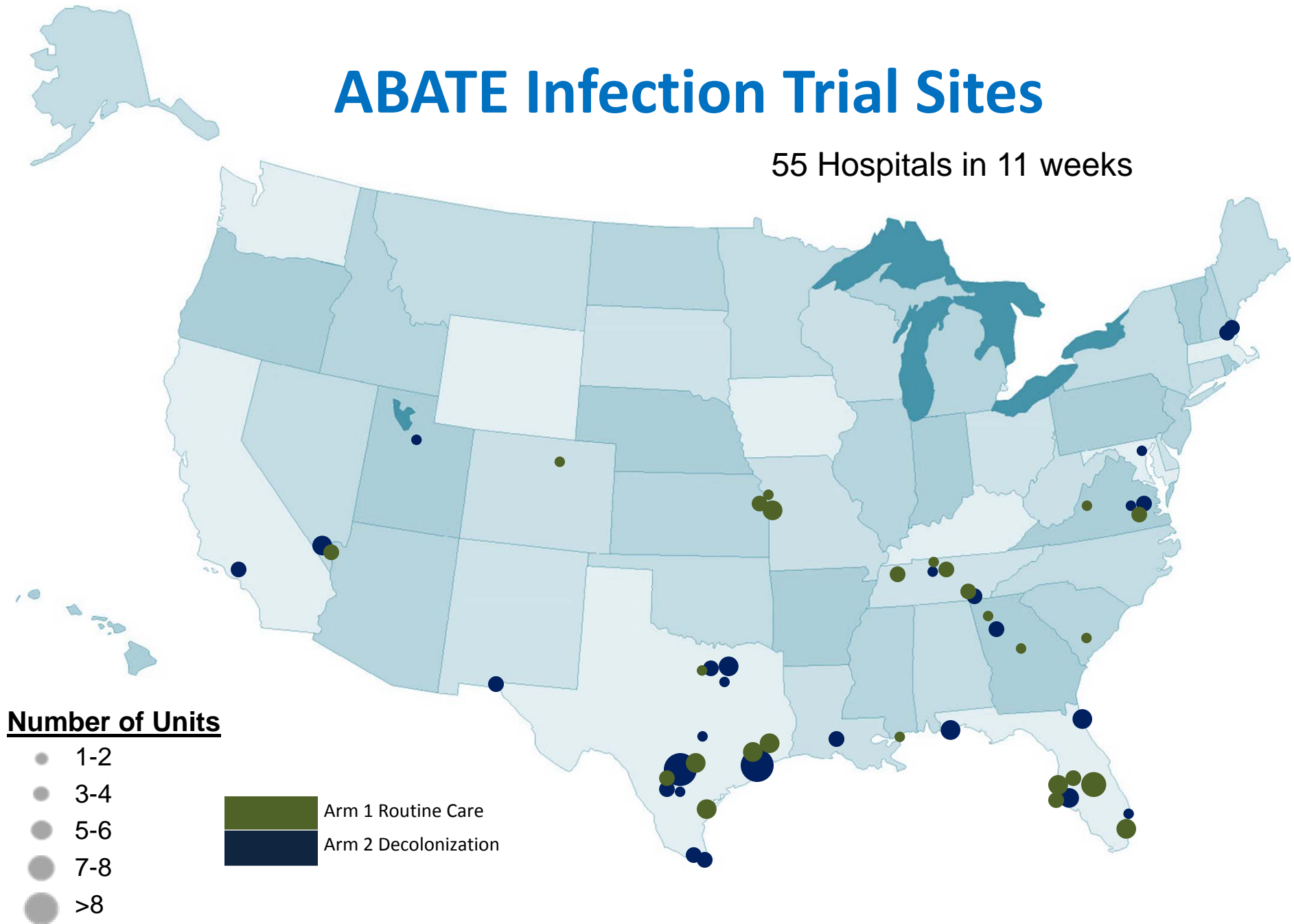


Recruitment

November 2012 – February 2013

ABATE Infection Trial Sites

55 Hospitals in 11 weeks





IRB Process



Julie
Lankiewicz



Becky
Kaganov

IRB Process

Centralized IRB Process

- 52 of 53 hospitals ceded to Harvard
 - One hospital provided their own oversight
 - Ceding process completed in 5 months (N=51, 98%)
- Authorized waiver of informed consent
- Prisoner representative – CJW Medical Center



Randomization

November 2013



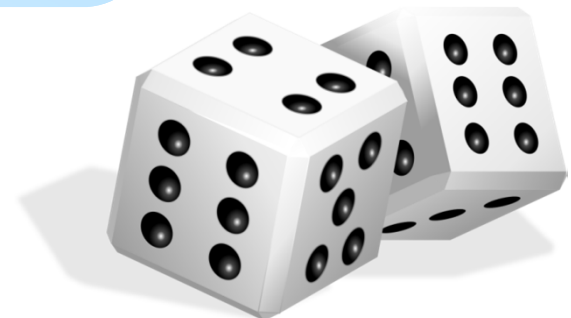
**Taliser
Avery**



**Susan
Huang**



**Ken
Kleinman**



Randomization Method

- Hospital Level: all participating units to same arm
- 53 hospitals participated in randomization
- Randomization accounted for baseline data
 - Hospital's volume of patients in participating units
 - Hospital's attributable patient days in participating units
 - Comorbidity index
 - % Surgery
 - % Cardiac/orthopedic patients
 - Prevalence of MRSA and VRE
 - Baseline MRSA and VRE clinical cultures
 - Baseline bloodstream infection rate

Randomization: Final List

Arm	# Hospitals	# Units	# States Represented
1	26	88	11
2	27	103	11
Total	53	191	15

Post Randomization Drop Out

- 53 hospitals participated in randomization
- 5 hospitals dropped out
 - 3 due to implementation of competing interventions
 - Arm 1
 - CHG pre-op bathing
 - CHG bathing in non-critical care units
 - Arm 2
 - Implementation of UV system
 - 1 due to single participating unit closing
 - 1 due to divestiture from HCA



Central Coordination



Adrijana
Gombosev



Lauren
Heim

Central Coordination Responsibilities

- Study calls
- Gmail and 800 number response
- Maintain contact information
- Study documents
- Protocol education
- Compliance reports
- Maintain log of key issues that arise
- Coordinate and training and site visits
- Tracking competing interventions

Schedule of Calls

Many conference calls are held throughout the week to ensure trial runs smoothly

- Steering Committee
- Analytics
- IT/data pulls
- Coordination

Field Calls

- Coaching calls
- Special Coaching calls
- Site specific compliance calls

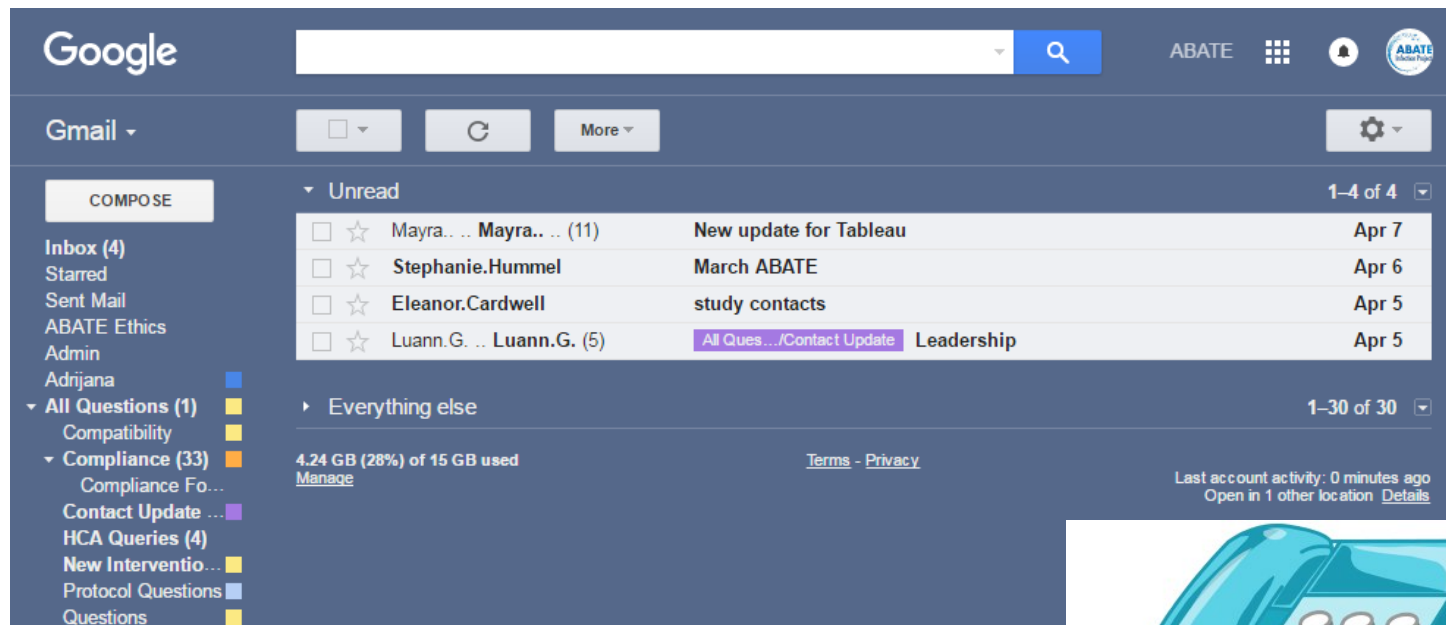
Coaching Calls

- **Number of Arm 1 calls: 22**
- **Number of Arm 2 calls: 40**
- **Number of Lab calls: 11**
- **Special Coaching Calls: 7**

Title	Presented by
Compendium of Strategies to Prevent HAIs	Deborah Yokoe, MD, MPH – Brigham & Women's Hospital and Dana-Farber Cancer Institute
The Road to ABATE: The HCA Journey	Ed Septimus, MD – HCA
ABATE Baseline Strain Collection Results	Mary Hayden, MD – Rush University
Secondary Analyses: REDUCE MRSA Trial	Susan Huang, MD MPH – U of California, Irvine Ed Septimus, MD – HCA
Nasal Decolonization of <i>S aureus</i> : Present and Future Prospects	Ed Septimus, MD – HCA
Major Infection Control Publications	Robert A. Weinstein, MD – Rush University
Considerations in QI Research	Susan Huang, MD MPH – U of California Irvine

Central Coordination

- # of Gmail Inquires Addressed: 11,183



ABATEStudy@gmail.com



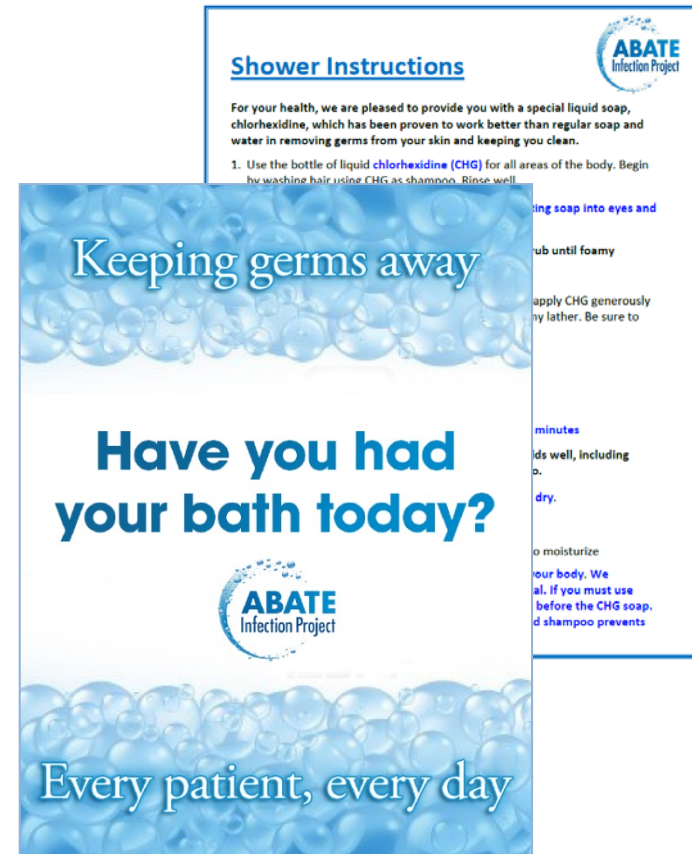
(855) 33-ABATE

(855) 332-2283

Educational Materials



of Binders Shipped: 239



of Wall Flyers Shipped (Arm 2):
2,330 room flyers; 1,149 shower flyers

Educational Materials

Evite las infecciones durante su hospitalización

DUCHAR diariamente con el jabón Chlorhexidine (CHG)

EI PACIENTE

Prevent infections during your hospital stay

SHOWER daily with Chlorhexidine (CHG) soap

PATIENT

Evite las infecciones durante la hospitalización

Bañar diariamente con el jabón CHG

EI Personal

Prevent infections during the hospital stay

BATHE daily with Chlorhexidine (CHG) soap

STAFF

During your stay in the hospital, bathe patients every day with a special antiseptic soap (CHG) to help remove germs and prevent infection.

Use 6 pads

1. Neck
2. All skin folds
3. Skin around all devices (line/tube/drain)
4. Wounds unless deep or large
5. Armpits, groin, between fingers/toes
6. Back

Caution: Avoid eyes and ear canals.

Avoid

* Regular soap from working shampoo or if to keep the skin dry so CHG

Encourage CHG shower or bath

Reminders

- Your enthusiasm is the greatest predictor of patients wanting to use CHG
- Encourage bathing every day. Starting on admission is ideal, before IVs, lines, urinary catheters, and procedures/surgery.
- Patients need direction on how to apply correctly and thoroughly
- Help clean 6 inches of lines, drains, tubes
- CHG is better than soap and water in removing germs and works for 24 hours
- CHG is safe to use on surface wounds, rashes and burns and removes germs
- Allow to air dry for best effect

Clean all skin areas with special attention to:

- Neck
- All skin folds
- Skin around all devices (line/tube/drain)
- Wounds unless deep or large
- Armpits, groin, between fingers/toes

Protect your patients every day

SHOWERING with CHG soap

1. Rinse body with warm water
2. Wash hair and face with CHG
3. Turn off the water and lather washcloth with plenty of CHG soap
4. Lather and massage soap in all 6 areas
5. Leave soap for 2 minutes before rinsing

BATHING with CHG cloths

1. Patients need instruction that these cloths are their protective bath
2. Use all 6 cloths. More, if needed.
3. **Firmly massage** to clean skin. CHG will kill germs for 24 hours if applied well.
4. Clean over semi-permeable dressings
5. Clean 6 inches of lines, tubes and drains
6. Use only compatible lotions.
7. Dispose of CHG cloths in a regular trash bin. Do not flush in commode.

Arm 2 Instructional Handouts Provided
in English and Spanish

ABATE
Infection Project

Active Bathing to Eliminate Infection Project

Daily Staff Huddle Reminders for CHG Bathing:
Patient Talking Points

ABATE
Infection Project

Active Bathing to Eliminate Infection Project

Daily Staff Huddle Reminders for CHG Bathing:
Cleaning Wounds and Devices

- Do not forget wounds and devices! Cleaning them prevents surface bacteria from diving into the body and causing infection
- Clean **ALL devices** on the body- lines, tubes, drains
- Clean **ALL wounds** unless packed
- Patients don't feel comfortable cleaning their wounds and devices, staff **HAVE TO HELP** clean them
- For showering patients, staff should take a single 2-pack of CHG and clean their wounds and devices for them after the shower

encourage patients

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d of germs being
otect the patient

Arm 2 Huddle Documents
Covering 14 Topics

Computer Based Training

- Web based training module with audio for each study arm
 - **Arm 1 module:** 11 slides + 6 question post-test
 - **Arm 2 module:** 30 slides + 8 question post-test
- Launched on Healthstream in January 2014
- Required for all nursing staff on participating units
- Continued use for protocol reinforcement and training new staff
- Annual CBTs completed

	2014	2015
Arm 1	3,407	2,022
Arm 2	4,928	3,721
Total	8,335	5,743

Arm 2 – Training Video

- 10 minute CHG bathing demonstration video scripted by ABATE investigators
- Accessible to nursing staff throughout trial via Atlas
 - Use for refresher, float, and new staff training
- **Special thanks to Sage Products for producing and filming!**

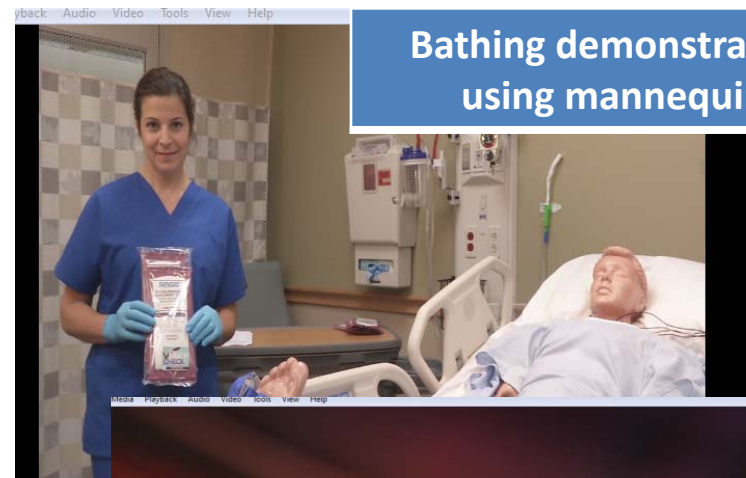
Arm 2 – Training Video



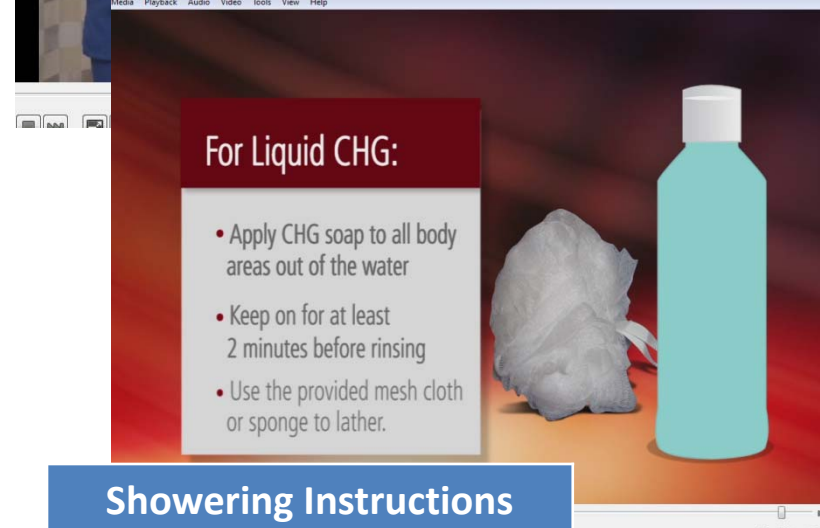
Special introduction and overview by Dr. Ed Septimus and Dr. Susan Huang



Scenarios of ways to encourage patients to bathe



Bathing demonstration using mannequin



Showering Instructions Overview



On Site Training



Jason
Hickok



Ed
Septimus



Julia
Moody



Chris
Bushe



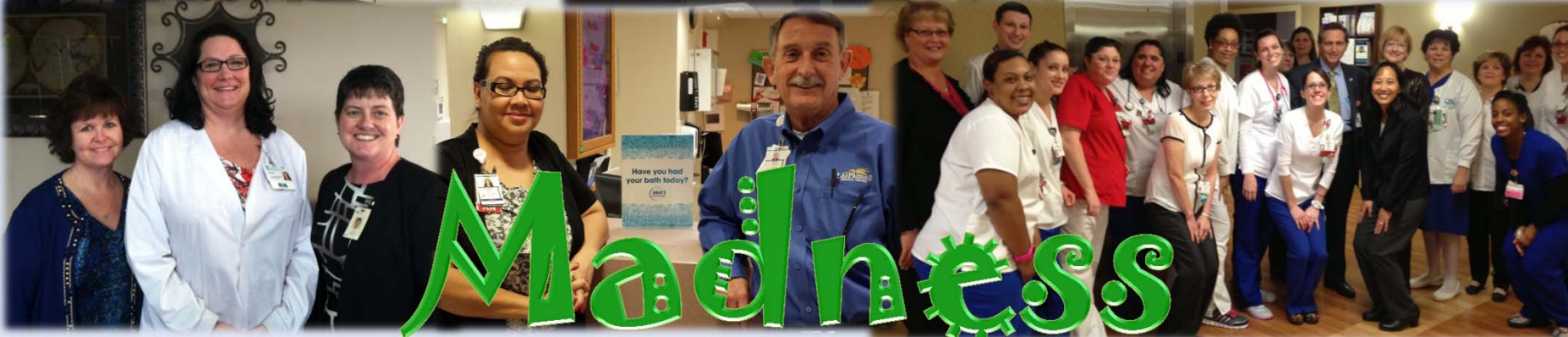
Susan
Huang

Arm 2 On-Site Training

- Visits conducted during March-early April 2014 by Sage Medical Liaisons and ABATE Study Staff
 - 26 baseline training visits completed
- 10 additional refresher training visits completed



2014 March



Madness

Arm 2 On-Site Training



**Instructional Presentation
and Product Demonstration**



Visiting Participating Units



Product Compatibility Checks



CHG Compatibility



Lauren
Shimelman



Laurie
Brewer

Ensuring CHG Compatibility

- Several lotions, ointments, incontinence cleanup and barrier products, soap and bathing products inactivate CHG
- Assessed skin products in clean supply areas for Arm 2 units
 - ~ 200 products reviewed
 - Removed incompatible bathing products
 - Alternative options provided for incompatible products and/or products with unknown compatibility

CHG Compatibility

- Product Compatibility Handout included in toolkit binders, emailed and uploaded to ATLAS

Active Bathing to Eliminate
Infection Project

Commonly Used HCA

Approved Chlorhexidine (CHG)

Compatible Products

LOTIONS			
Compatible			
✓ ConvaTec Aloe Vesta 2-Moisturizing Skin Conditioner		✓ Medline Remedy Basics Moisturizing Body Lotion	
✓ ConvaTec Senti-Care 2 – Moisturizing Body Cream		✓ Medline Remedy Olivamine Skin Repair Cream	
NOT Compatible			
✗ Johnson & Johnson Baby Lotion*		✗ Medline MedSpa Hand & Body Lotion*	
✗ Medline MedSpa Baby Lotion*		✗ Steris Kindest Kare Skin Cream*	

INCONTINENCE BARRIER PRODUCTS			
Compatible			
BARRIER CREAM		BARRIER CREAM CLOTH / WIPE	
✓ ConvaTec Aloe Vesta 3 – Protective Barrier Spray		✓ Sage Comfort Shield Barrier Cream Cloths	
✓ ConvaTec Aloe Vesta 3 – Protective Ointment		BABY POWDER	
✓ ConvaTec Senti-Care 3 – Protective Barrier Cream		✓ Medline Soothe and Cool Non Caking Powder	
✓ Medline Remedy Olivamine Calasime Skin Protectant Paste		✓ Medline Talc Baby Powder	
✓ Medline Remedy Olivamine Clear-Aid Skin Protectant			
✓ Medline Remedy Phytoplex 2-Guard Skin Protectant Paste			

INCONTINENCE CLEAN UP: PERINEAL CLEANSERS, BABY WIPES			
Compatible			
PERINEAL CLEANSER		BABY WIPES	
✓ ConvaTec Aloe Vesta Cleansing Foam		✓ Huggies Natural Care Wipes	
		✓ Medline Biodegradable Flushable Wipes (scented, unscented, dimethicone)	
NOT Compatible		✗ Pampers Sensitive Wipes**	

GENERAL GUIDANCE	
<ul style="list-style-type: none">• DO NOT USE ANY BATHING, SOAP OR SHAMPOO PRODUCTS. CHG bathing cloths or CHG liquid soap replace soap and water.• SHAMPOO: Leave-in Shampoo Caps may be used with careful instruction to avoid contact with face and body skin, suggested products include: Sage Comfort Bath Rinse-Free Shampoo Cap or Medline ReadyBath Rinse-Free Shampoo and Conditioning Caps• SHAVING CREAM: All shaving creams are incompatible with CHG and should be removed and replaced with ConvaTec Aloe Vesta Cleansing Foam• ANTIPERSPIRANTS: Do not use antiperspirants (Medline MedSpa Deodorant/Personal Antiperspirant)• WOUND CARE: All products intended to treat active wounds or for medical management of rashes can be used as needed, including anti-fungal creams, steroid creams, duoderm products	

* Product compatibility is unknown, or has not been tested by manufacturer for compatibility

** Product is not compatible with chlorhexidine, as confirmed by manufacturer





Compliance



Lauren Heim

Compliance Tracking

- Daily checks for all units until $\geq 85\%$ compliance or greater met consistently for all measures, then moved to monthly (once/week) checks
 - CHG bathing
 - Mupirocin administration
 - Documentation (Arm 2)
- Number of unit compliance reports submitted: **7,933**

ABATE Nursing Query

ABATE Infection Study

01/30 1349 SMS J00009190860 SCOTT,SCOTT

Bath in 24 hours

- 1 No bath
- 2 Bath/Shower with CHG includes pre-surgical bathing
- 3 Bath/Shower without CHG

Hygiene Care

Bath/Shower in past 24 hours:

Reason for no bath:

Tableau Reports

- Corporate IT&S developed user friendly reports to capture bathing and mupirocin administration
- Eased process for completing compliance spreadsheets

Workbook: ABATE_CHG in Project: ABATE

Projects 23 Delete Permissions Tag Scheduled Tasks Download Workbook

Workbooks 29 Last full refresh occurred Today, 7:04 AM

Views 327

Data Sources 5

Filters

Search for content

PROJECT Any Project

OWNER Any Owner

TAG Any Tag

MODIFIED ON OR AFTER Any Date

MODIFIED ON OR BEFORE Any Date

FAVORITES Show Only Favorites

RECENTLY USED Show Only Recently Us...

Rows per page: 50 Pages: 1 / 1

Documentation Compliance Detail

of documentations / # of Patients

*1 documentation per patient max

Last Updated 1/15/2015 7:04:11 AM

Compliance Breakdown

	11/1/2014	11/2/2014	11/3/2014	11/4/2014	11/5/2014	11/6/2014
# of Patients	11	6	13	4	9	13
Admit Day(Partial)	16	21	17	10	14	15
Discharge Day(Partial)	7	6	8	10	6	8
# of Pats w/ at least 1 Documentation	6	2	7	1	3	9
Intra Day(Full)	13	17	12	12	14	5
Discharge Day(Partial)	1	0	2	3	5	2
Grand Total	34	33	38	32	31	38
# of Pats w/ at least 1 ..	22	19	21	10	22	16

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Special Thanks to Tyler Forehand and the Corporate IT&S Team!



Arm 2 Compliance Form

Bathing Documentation on Assessment Day

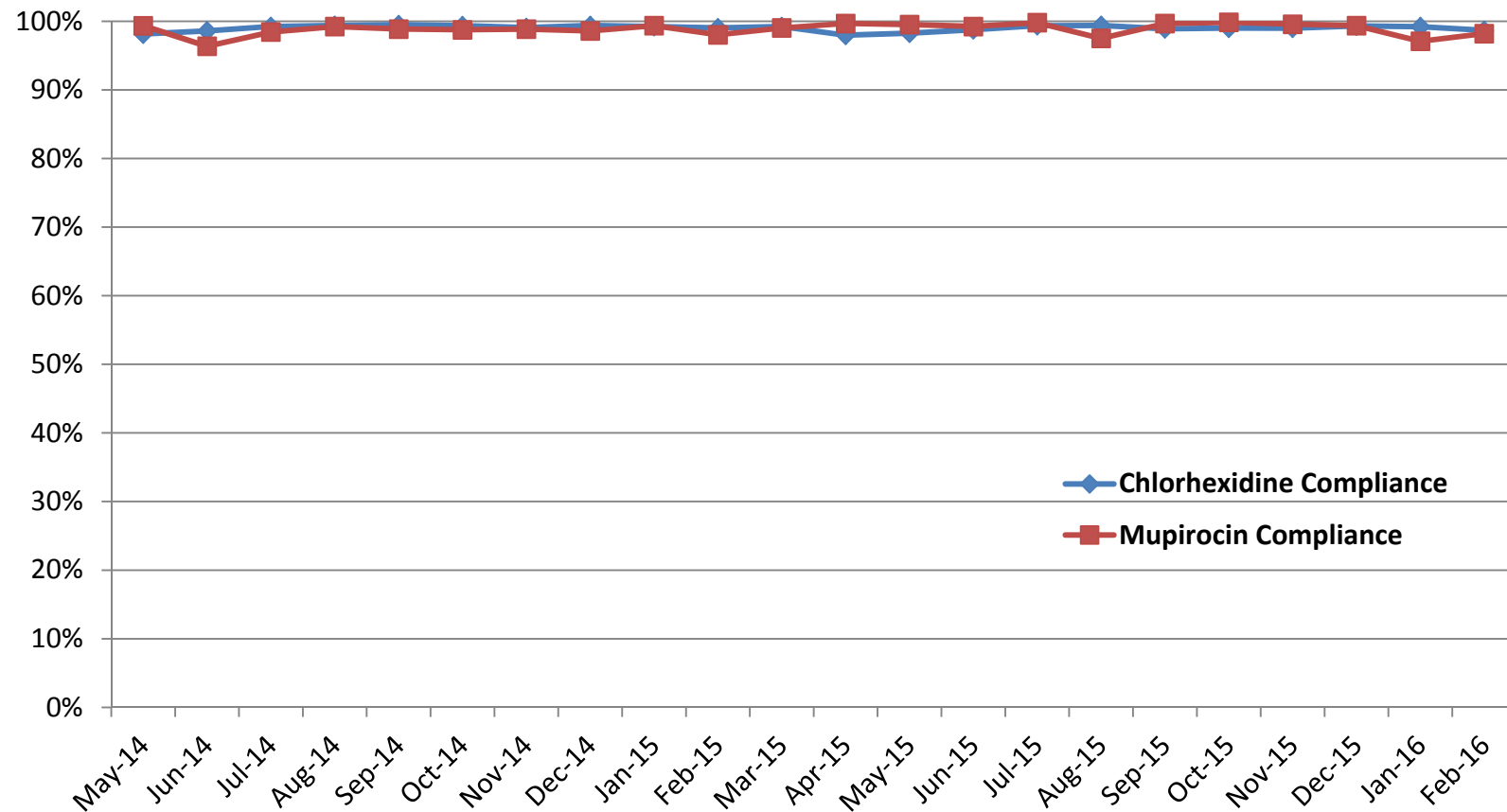
Total # of Patients in Unit	# Patients with Completed Bathing Prompt	Missed Opportunity	Documentation Compliance
24	12	12	50%
34	22	0	65%
		0	#DIV/0!
		0	#DIV/0!

Filter by "Location" (unit)

Pat Type Code
I = Inpatient
O = Outpatient
E = Emergency
S = Surgical

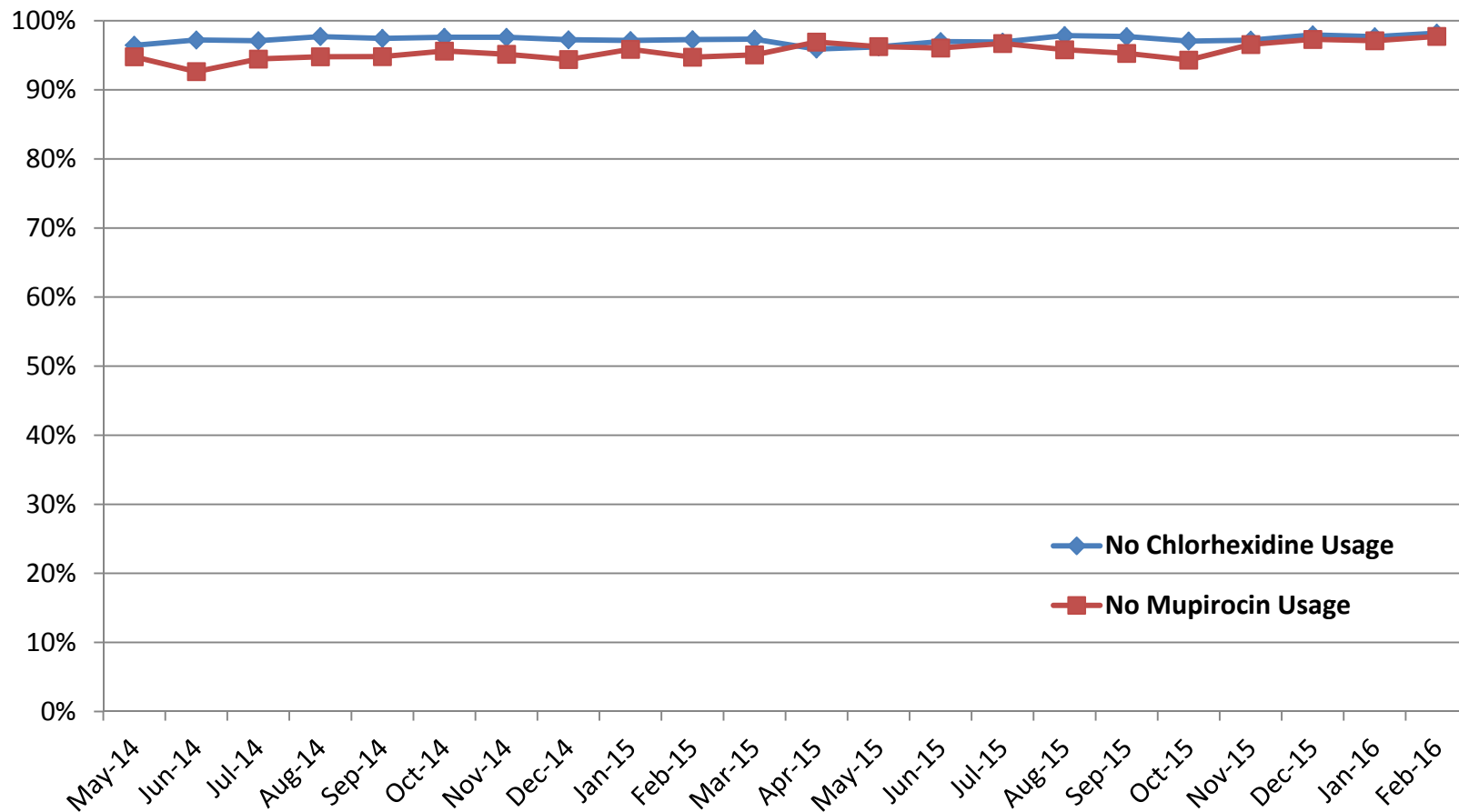
Arm 1: Protocol Compliance

Arm 1: Per-protocol non-use of CHG and mupirocin



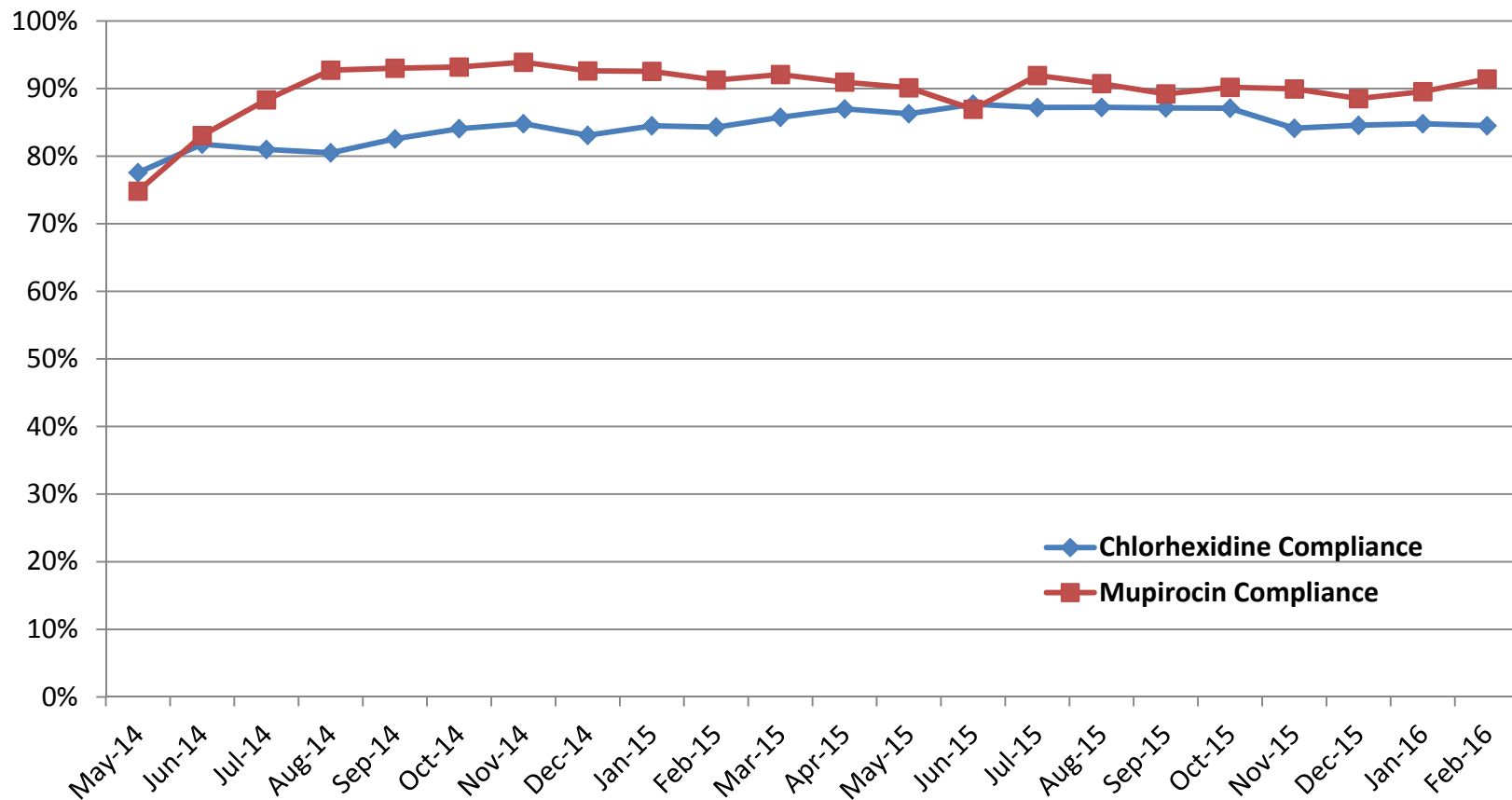
Arm 1: Overall CHG and Mupirocin Non-Usage

Arm 1: Reflects usage even with acceptable exceptions per protocol



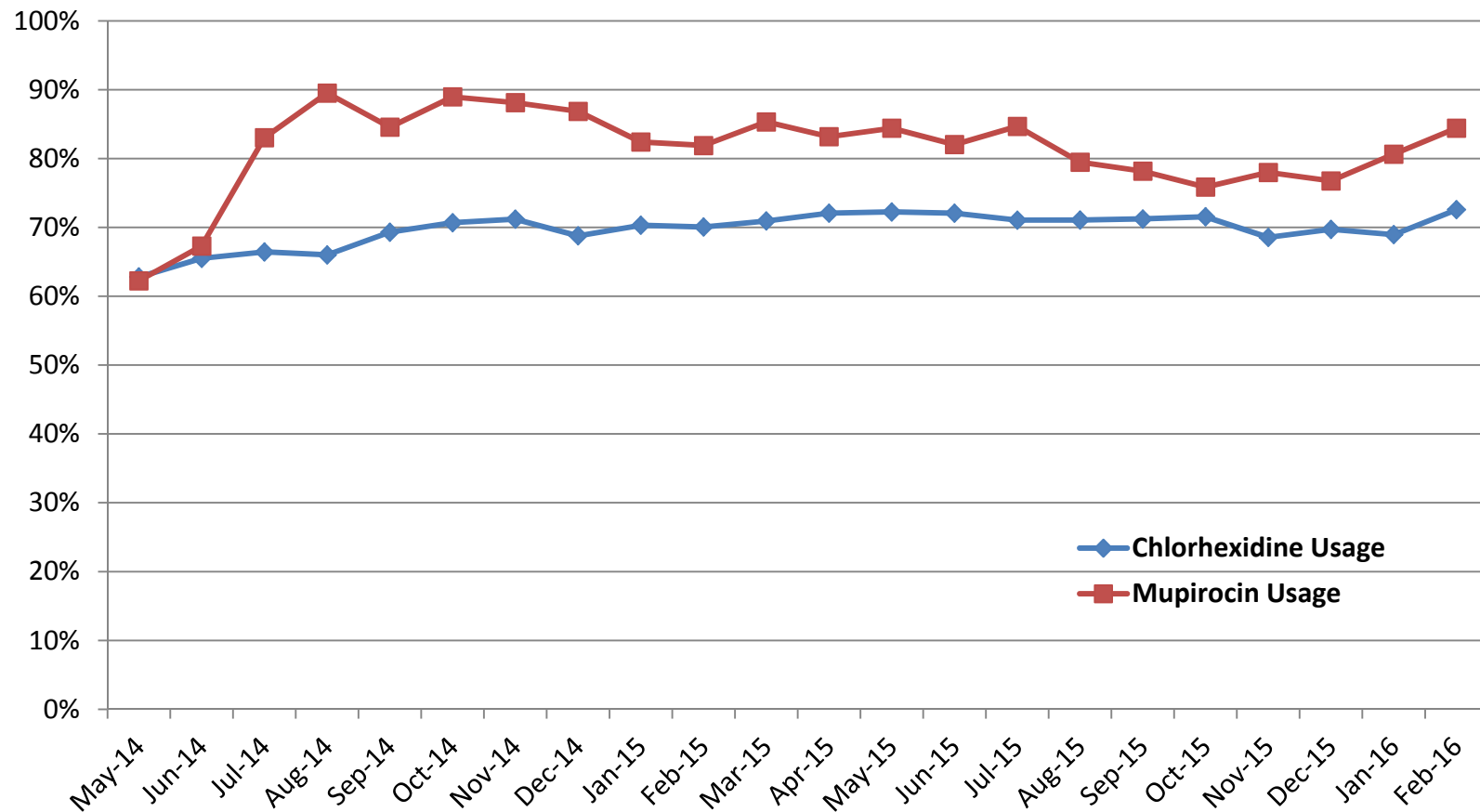
Arm 2: Protocol Compliance

Arm 2: CHG and Mupirocin Compliance Average



Arm 2: Overall CHG and Mupirocin Usage

Arm 2: CHG and Mupirocin Usage Average



Arm 2 – Quarterly Staff and Patient Compliance Assessments

Hospital Name: _____ Unit Name: _____

HCA
Hospital Corporation of America™

Skills Assessment:
CHG Cloth Observation Checklist

Please complete for **THREE** different staff **per unit**

Individual Giving CHG Bath

Please indicate who performed the CHG bath.

☐ Nursing Assistant (CNA) ☐ Nurse ☐ Other: _____

Observed CHG Bathing Practices

Please check the appropriate response for each observation.

<input type="checkbox"/> Y	<input type="checkbox"/> N	Patient received CHG cloth bathing handout
<input type="checkbox"/> Y	<input type="checkbox"/> N	Patient told that bath is a no rinse cloth that provides protection from germs
<input type="checkbox"/> Y	<input type="checkbox"/> N	Provided rationale to the patient for not using soap at any time while in unit
<input type="checkbox"/> Y	<input type="checkbox"/> N	Massaged skin <i>firmly</i> with CHG cloth to ensure adequate cleansing
<input type="checkbox"/> Y	<input type="checkbox"/> N	Cleaned face and neck well
<input type="checkbox"/> Y	<input type="checkbox"/> N	Cleaned between fingers and toes
<input type="checkbox"/> Y	<input type="checkbox"/> N	Cleaned between all folds
<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A Cleaned occlusive and semi-permeable dressings with CHG cloth
<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A Cleaned 6 inches of all tubes, central lines, and drains closest to body
<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A Used CHG on superficial wounds, rash, and stage 1 & 2 decubitus ulcers
<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> N/A Used CHG on surgical wounds (unless primary dressing or packed)
<input type="checkbox"/> Y	<input type="checkbox"/> N	Allowed CHG to air-dry / does not wipe off CHG
<input type="checkbox"/> Y	<input type="checkbox"/> N	Disposed of used cloths in trash / does not flush

Query to Bathing Assistant/Nurse

1. How many cloths were used (1 cloth set = 6 cloths, 1 cloth set plus 1 single pack = 8 cloths)

2. If more than 1 cloth set (6 cloths) was used, provide reason.

3. Do you reapply CHG after an episode of incontinence has been cleaned up?

4. Are you comfortable applying CHG to superficial wounds, including surgical wounds?

5. Are you comfortable applying CHG to lines, tubes, drains and non-gauze dressings?

6. Do you ever wipe off the CHG after bathing?

Email to ABATEStudy@gmail.com or fax to (949) 824-3985

completed: 1,469

Hospital Name: _____ Unit Name: _____


HCA
Hospital Corporation of America™

Skills Assessment:
CHG Cloth – Patient Self-Bathing

Please complete for **THREE** different patients **per unit**

Please record patient responses after the patient showered with CHG liquid.

Questions

- Were you provided a handout with instructions on how to apply the CHG liquid in the shower?
☐ Y ☐ N
- Were you told that CHG kills germs better than regular soap and water?
☐ Y ☐ N
- Did you use the mesh sponge to apply the CHG? 
☐ Y ☐ N
- Did you soap up twice with CHG before rinsing?
☐ Y ☐ N
- Did you leave the CHG on your skin for 2 minutes before rinsing off?
☐ Y ☐ N
- Were you told NOT to use other bathing soaps or lotions while in this unit?
☐ Y ☐ N
- Were you told to bathe or shower daily with CHG while in this unit?
☐ Y ☐ N
- Did you or an assistant clean your lines, tubes, and/or drains with a CHG cloth after showering?
☐ Y ☐ N ☐ N/A
- Did you or an assistant clean your wounds with a CHG cloth after showering?
☐ Y ☐ N ☐ N/A

completed: 1,251

Top CHG Patient Bathing Issues

- Patient was **NOT**:
 - Provided instructional handout on how to apply CHG cloths
 - Told to NOT use other bathing soaps or lotions while on unit
 - Told that the temporary stickiness was due to aloe and would go away when dried
- Patient or bathing assistant did **NOT**:
 - Clean wounds
 - Clean lines, tubes, and/or drains
 - Use all six cloths

Top CHG Patient Showering Issues

- Patient was **NOT**:
 - Told to soap up twice with CHG before rinsing
 - Provided instructional handout on how to apply liquid CHG
- Patient or bathing assistant did **NOT**:
 - Clean lines, tubes, and/or drains with a CHG cloth after showering
 - Clean superficial wounds with a CHG cloth after showering
 - Leave CHG on skin for 2 minutes before rinsing off
 - Use the mesh sponge for application

Intervention Tracking

- New/proposed interventions evaluated by Steering Committee to check for conflict with trial outcomes

Arm	Proposed Interventions	Allowed	Not Allowed (Conflicting)
1	83	47 (57%)	36 (43%)
2	102	73 (72%)	29 (26%)
Division	9	7 (78%)	2 (22%)
Corporate	2	2 (100%)	0 (0%)
Total	196	129 (66%)	67 (34%)

*Additional 8 (4%) intervention reported, but withdrawn

Commonly Reported Interventions

Interventions deemed in conflict with the study:

- New use of UV cleaning systems or UV/ATP monitoring
- New practice audits that provide feedback for improvement (e.g. direct environmental cleaning audits)
- New use of alcohol caps for central lines

Interventions deemed not in conflict with the study:

- Vendor swap out (highly similar product)
- Re-inservicing on current gold standard practice



Strain Collection



Lauren
Shimelman



Katie
Haffenreffer

Strain Collection Overview

- Goal: Assess emergence of mupirocin and CHG resistance
- MRSA and select GNR collection throughout trial, VRE collection for part of Intervention
- One isolate per species from a single patient admission
- 38 laboratories → shipped isolates to Rush University
- Eligible Isolate Report (EIR) developed and implemented
- ~2,000 phone calls to laboratories throughout trial

Strain Collection Overview

Isolate Documentation and Shipping Materials



Facility Name: _____
 Lab Contact Name: _____
 Phone: _____
 Shipment Date: _____

ABATE Strain Collection COLLECTION LOG SHEET

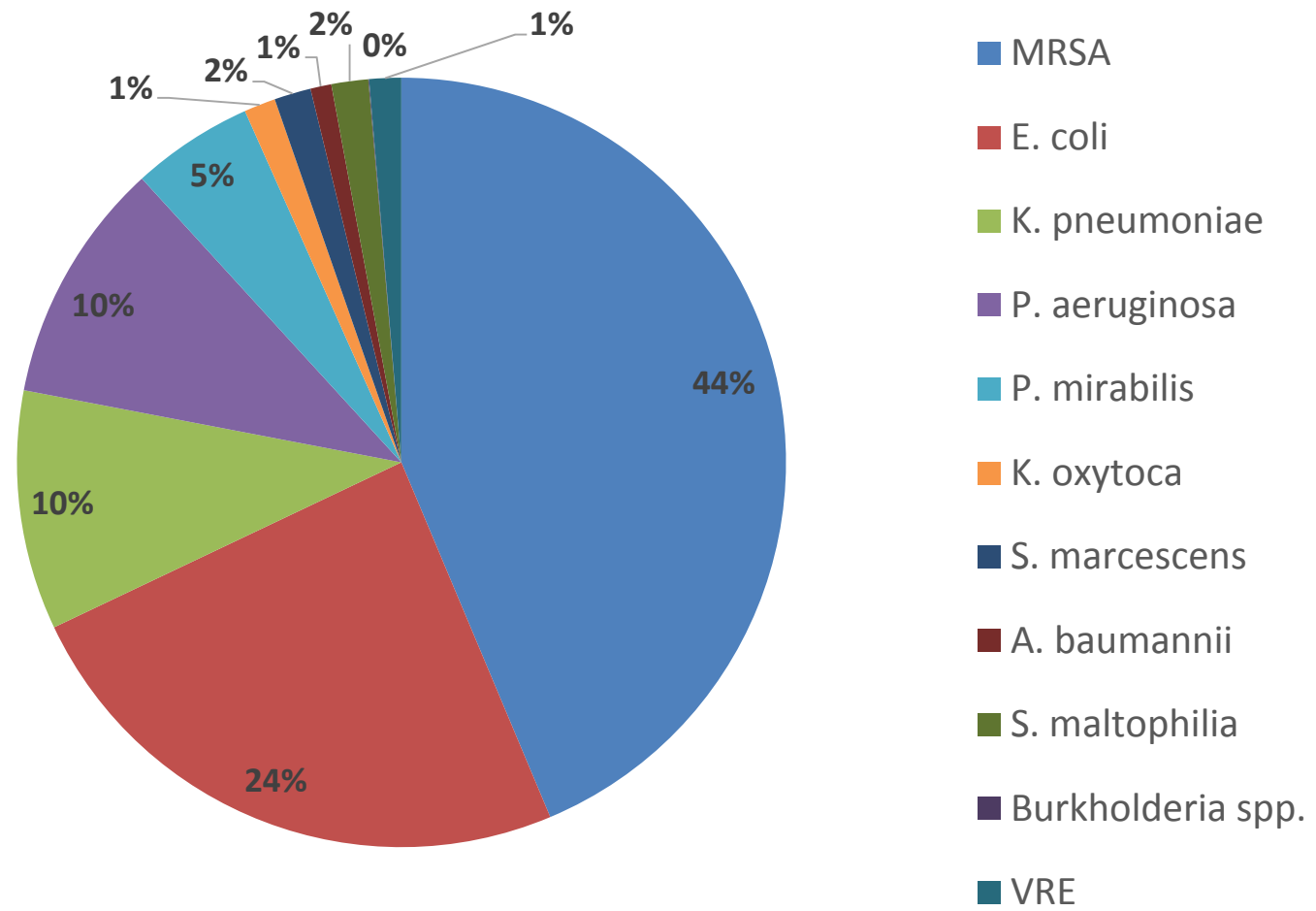
Fax completed Collection Log to:
Fax: 866-947-4620
Attn: Julia Moody

MRSA & GNR COLLECTION LOG SHEET			
#	HCA PATIENT SPECIMEN LABEL	CIRCLE ORGANISM TYPE	ADD'L INFO
	<ul style="list-style-type: none"> PLACE 1st SMALL LABEL ABOVE DOTTED LINE IF AVAILABLE, PRINT AND PLACE 2nd SMALL LABEL THAT INCLUDES THE DATA ELEMENTS LISTED BELOW, OR HAND WRITE THE INFORMATION INTO THE SPACES PROVIDED <hr/> <ul style="list-style-type: none"> Age ____ and/or Date of Birth: ____/____/____ Sex: M F Specimen Source: _____ Lab Spec ID: _____ 	MRSA culture E coli K. pneumoniae K. oxytoca P. mirabilis S. marcescens A. baumannii P. aeruginosa S. maltophilia Burkholderia _____	StudyID Label: Hospital Admit Date: Day of Lab Collection Unit of Lab Collection Qualifying ABATE Location Day of Transfer to ABATE Location

**800 isolate shipping kits sent
to participating laboratories**

Strain Collection Totals

Total Isolates Confirmed



Figures as of 3/28/16



Rush University

Antibiotic/Antiseptic Resistance Testing

Rush University



Mary
Hayden



Karen
Lolans

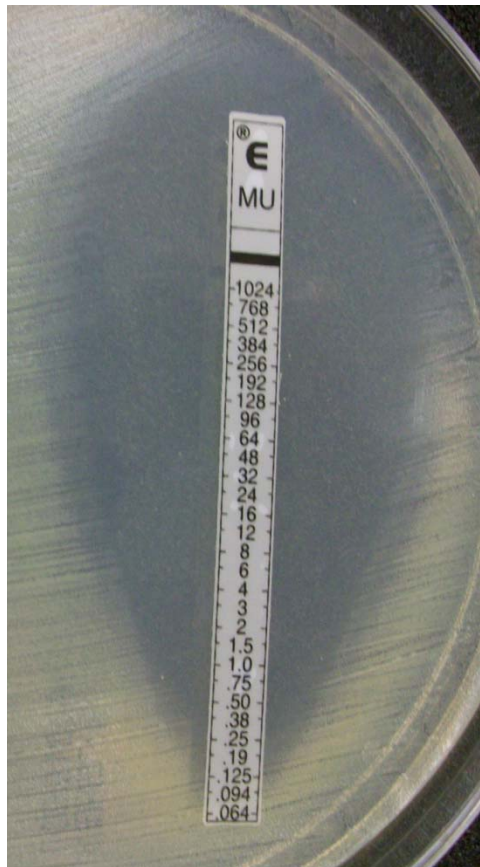


Lena
Portillo

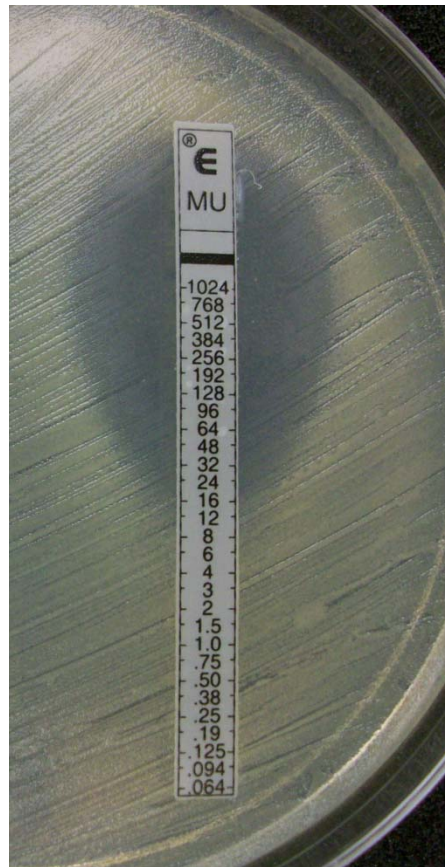


Jalpa
Patel Sarup

Mupirocin Susceptibility Testing (MRSA)



Susceptible
MIC <8 µg/ml



Low-level Resistance
MIC 8-64 µg/ml



High-level Resistance
MIC >256 µg/ml

- Microtiter method using 20% aqueous chlorhexidine digluconate diluted in cation-adjusted Mueller Hinton broth



Data Collection and Analysis of Outcomes



**Taliser
Avery**



**Susan
Huang**



**Ken
Kleinman**



**Caren
Spencer-Smith**

Types of Data

Admission

Encrypted Patient ID
Admission Dates
Sex
Ethnicity
Insurance
21 Diagnoses codes
21 POA indicators
15 Procedure codes
Final disposition

Nursing Query

Encrypted Patient ID
Specimen ID
Nursing Date
Unit / Charge Type
Chlorhexidine bath

Supply Chain

Gloves, gowns,
Alcohol rub

Charge

Charge Date
Unit / Charge Type
Unit name
Mupirocin use
Chlorhexidine use

Lab

Encrypted Patient ID
Specimen ID
Collection Date
Screen vs. Culture
Pathogen
Antibiotic
Result

Analysis Plan: Population

- All patients who entered a participating ABATE unit at 53 hospitals, 191 units
- Timeframe

Baseline	April 2013-March 2014
Phase-In (2 months)	April-May 2014
Intervention (21 months)	June 2014-Feb 2016

Outcomes

Outcomes obtained from the HCA data warehouse

Primary Outcomes

- Unit-attributable clinical cultures with MRSA and VRE

Additional Outcomes

- Unit-attributable clinical cultures with GNR MDRO
- Unit-attributable clinical cultures with *C. difficile*
- Bloodstream infections: all pathogens
- Bloodstream contaminants
- Urinary tract infections: all pathogens
- 30 day readmissions (total and infectious)
- Emergence of resistance (strain collection)
- Cost effectiveness

Primary Manuscript

Outcomes obtained from the HCA data warehouse

Primary Outcomes

- Unit-attributable clinical cultures with MRSA and VRE

Additional Outcomes

- Unit-attributable clinical cultures with GNR MDRO
- Bloodstream infections: all pathogens

Analysis Plan: Primary Manuscript

- HCA has 45-60 day window to finalize data (June 2016)
- Conservative Estimates – hope to accelerate
 - Data cleaning: 6-8 months
 - Analysis: 1-2 months
 - Submit abstract to ID week: May 2017
 - Present to HCA participants: October 2017
 - Present at ID week: October 2017



Participant Commendation

Participant Certificates - Hospital



Active Bathing to Eliminate Infection Project

Certificate of Appreciation

Presented on March 1, 2016 to

"Hospital Name"

In recognition for your outstanding participation in the ABATE Infection Project.
Your dedication to this trial was instrumental to its success.

Jonathan B. Perlin, MD, PhD, MSHA, MACP, FACMI
President, Clinical Services and Chief Medical Officer - HCA



Ed Septimus, MD, FIDSA, FACP, FSHEA
Medical Director, Clinical Services Group
Infection Prevention and Epidemiology - HCA

Participant Certificates - Lab



**Thanks to Our Participating Hospitals,
Investigative Team, & Supporters**



Active Bathing to Eliminate Infection Project