

People, Products, Process Equals Cleaning Competency

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Objectives

- Identify three components needed to achieve cleaning competency
- Define the definitions of cleaning and disinfection
- Name one must have process to assure proper cleaning

People



Florence Nightingale

- Florence realized that if nurses were to be accepted, they had to do a very good job.
- It was very important that the women recruited to become nurses should be well suited to the work.

Philosophy

- We all want to be accepted
- In order to be accepted we all have to do a good job.
- We all need to like our job
- We all need to be trained to do our job
- We need the proper tools to do our job

Connect to Purpose

- Infection Control attendance at EVS staff meetings.
- Presentation to staff of connection to purpose ,communication, transmission of infection, and education.
- Standardization of EVS policy


Communication in the Past



- “All in the Family”
Television Sitcom with dysfunctional communication and dysfunctional relationship
- Each was thinking the other simply did not understand the consequences of the other’s actions or absence of actions

Present Communication



- “The Andy Griffith Show” TV Sitcom 
- Strong Interaction bridging the gap always working together, spending time, planning together
- We are now narrowing that gap by complementing each other’s expertise in our facilities and membership organizations

Linking The Hospital Environment To Hospital Acquired Infections

- Hospital rooms are not cleaned well. (AJIC 2006) (ICHE 2008)
- Previously contaminated rooms increase transmission risk (Sturdis 2008)
- Cleaning can be improved in hospitals (ICHE 2008) (Hayden 2006)
- Decreased environmental contamination with improved cleaning (Hayden 2006) (Huang 2008)
- Decreasing pathogens with improved cleaning outcomes (Hayden 2006), (Datta 2009)



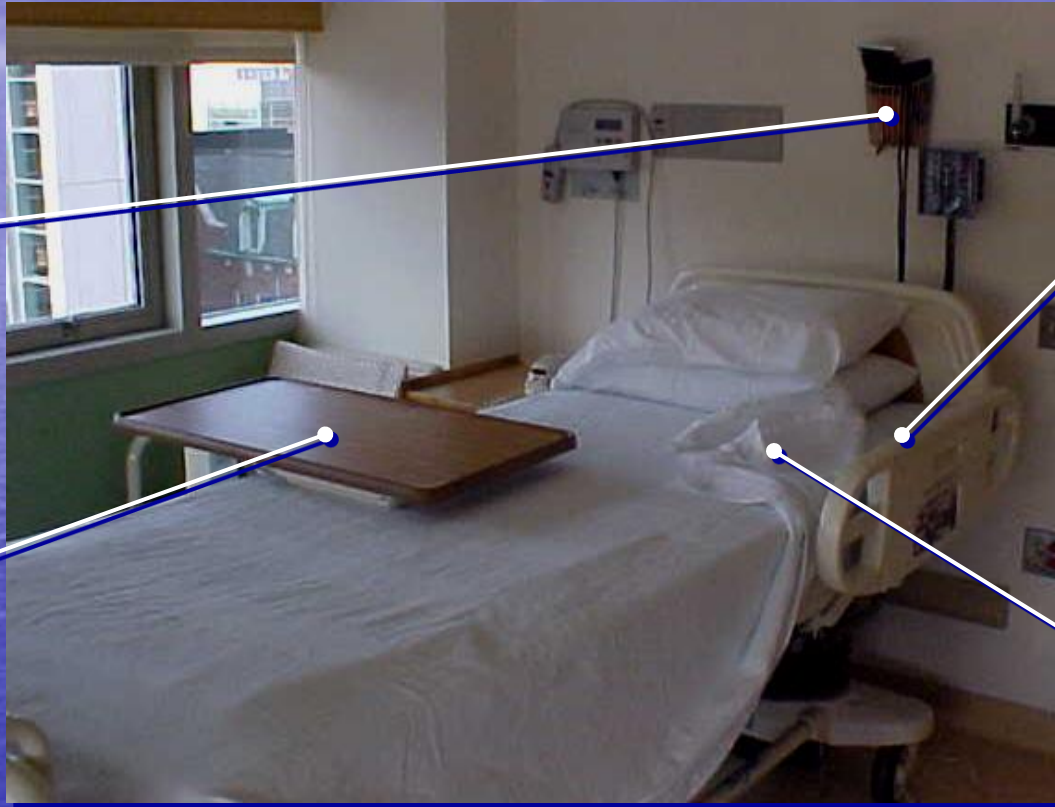
CDC Urges Hand Hygiene. Is That Enough?

- That's a start but it's not enough
- As long as hospitals are inadequately cleaned, doctors' and nurses' hands will be contaminated seconds after they are washed.
- Johns Hopkins Hospital study 26% of supply cabinets were contaminated with MRSA and 21% with another germ VRE

Organisms can survive for months!

Blood pressure cuffs: 14%

Bedside Tables: 20%



Bed rails: 26%

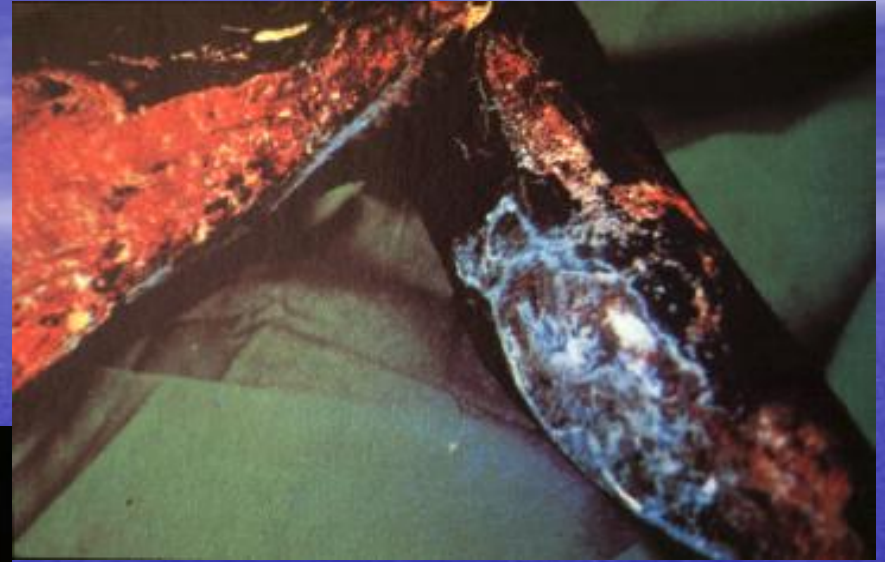
Sheets: 40%

Overall, 63% of VRE (+) patient rooms are contaminated

MRSA Infection



Leg burn wound photographed under UV light with pseudomonas infection.



Pyoderma associated with Pseudomonas.

“Flesh Eating” Bacteria



Eye Infections

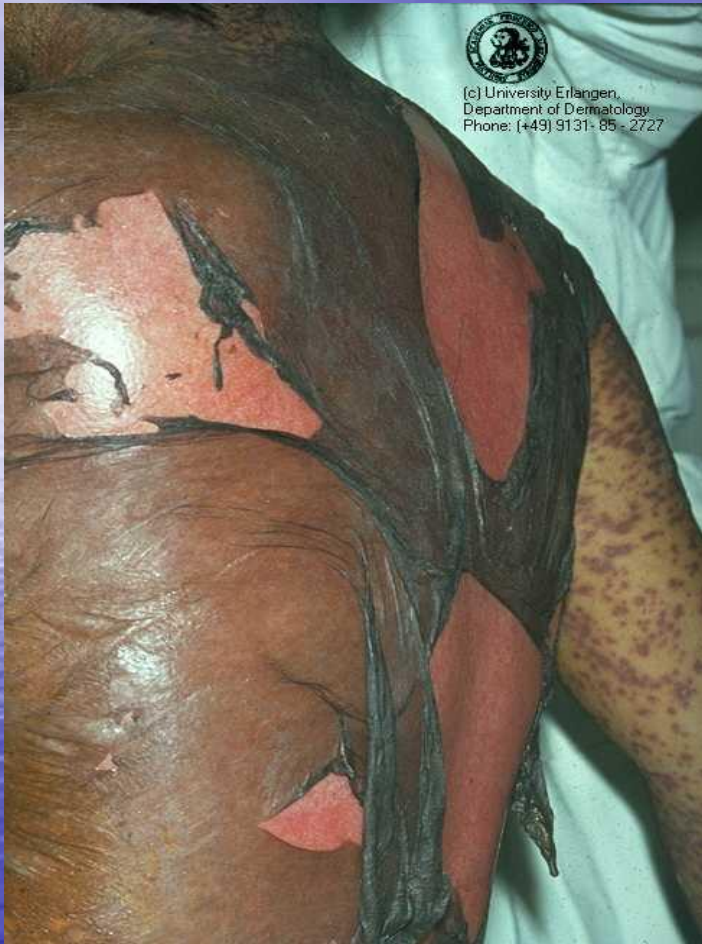


Viral

Bacterial



Scalded Skin Syndrome

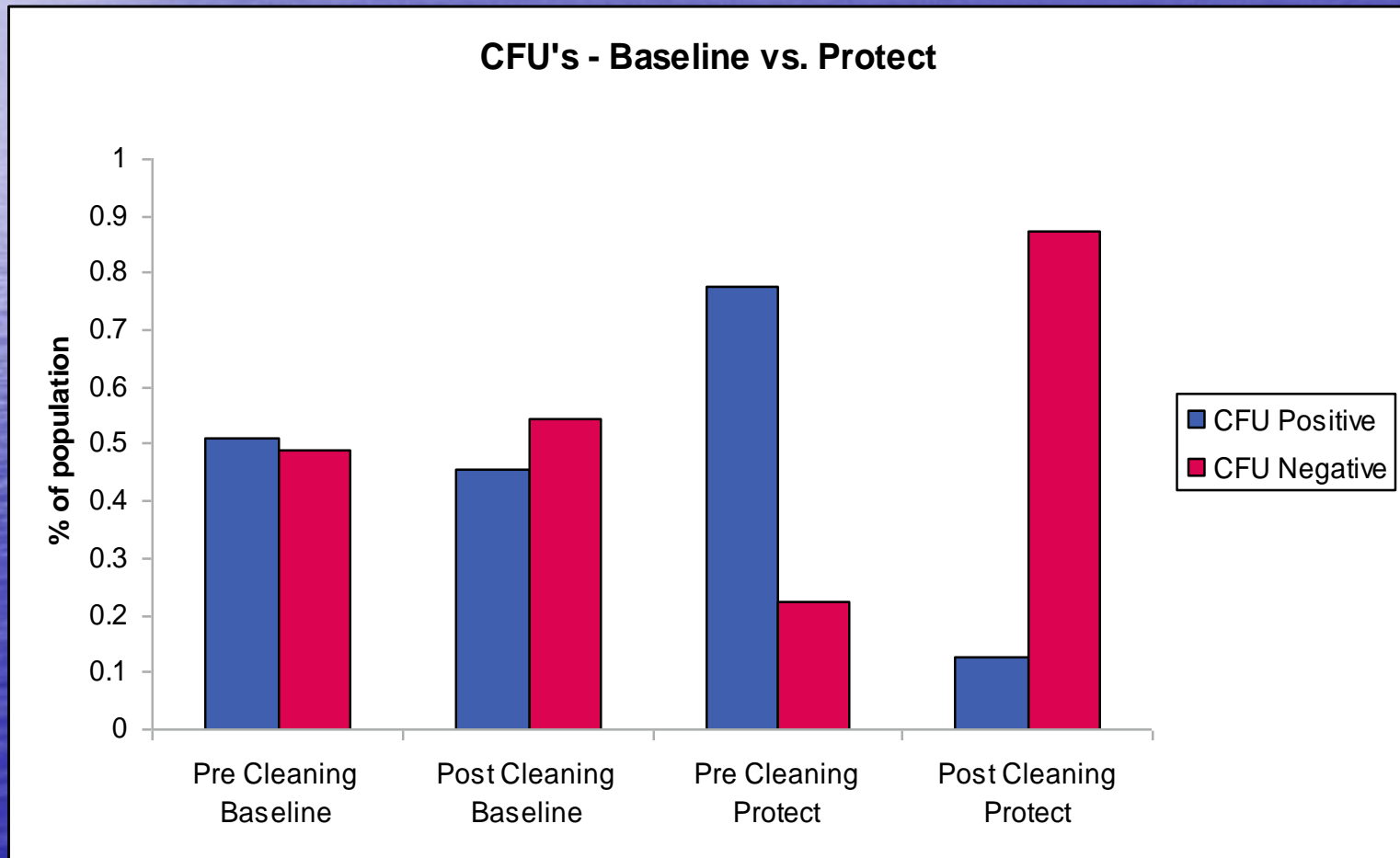


Electron micrograph of *Staph aureus*



Hygiene Outcomes – Culture's

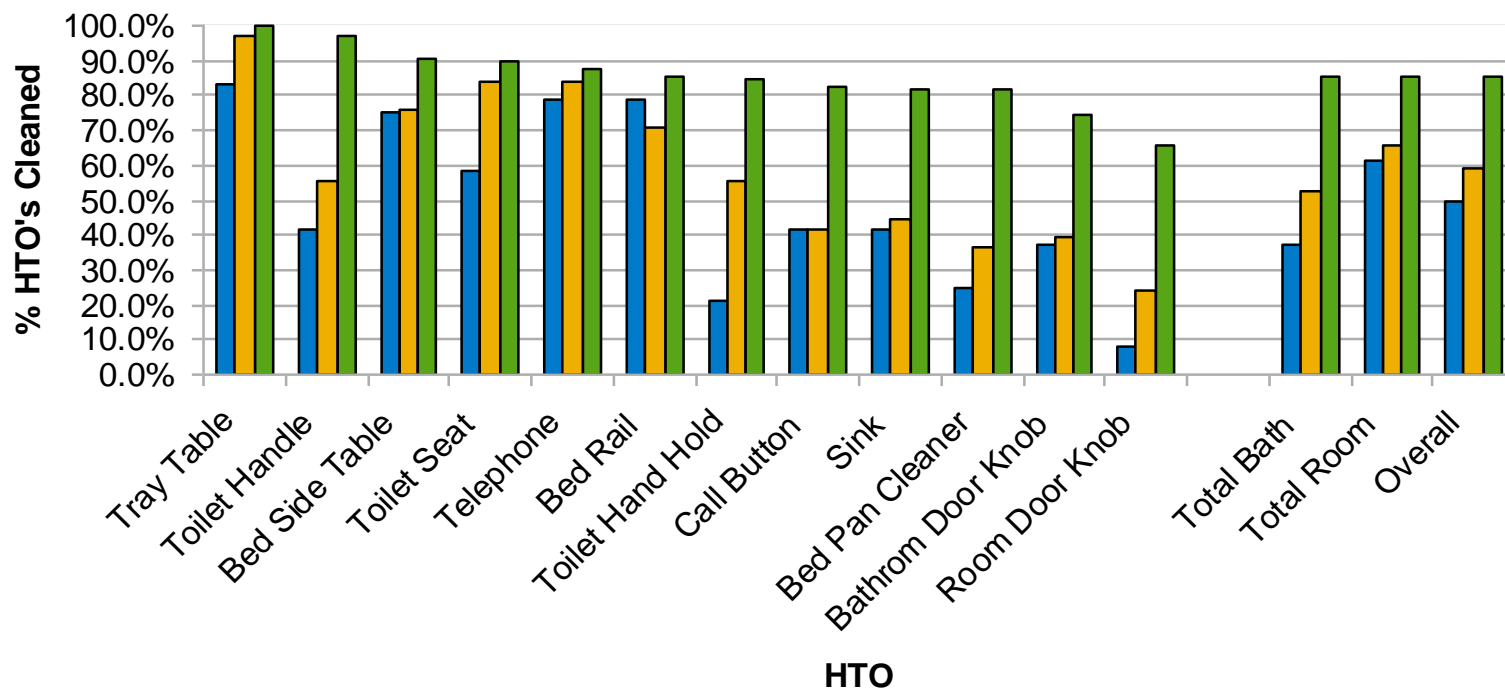
Culture Methodology: Total count cultures of pre and post cleaning of HTO surfaces



Hygiene Outcomes – Marking Solution

Detail Analysis of Percent Time High Touch Objects cleaned

Advocate Christ Marking Solution



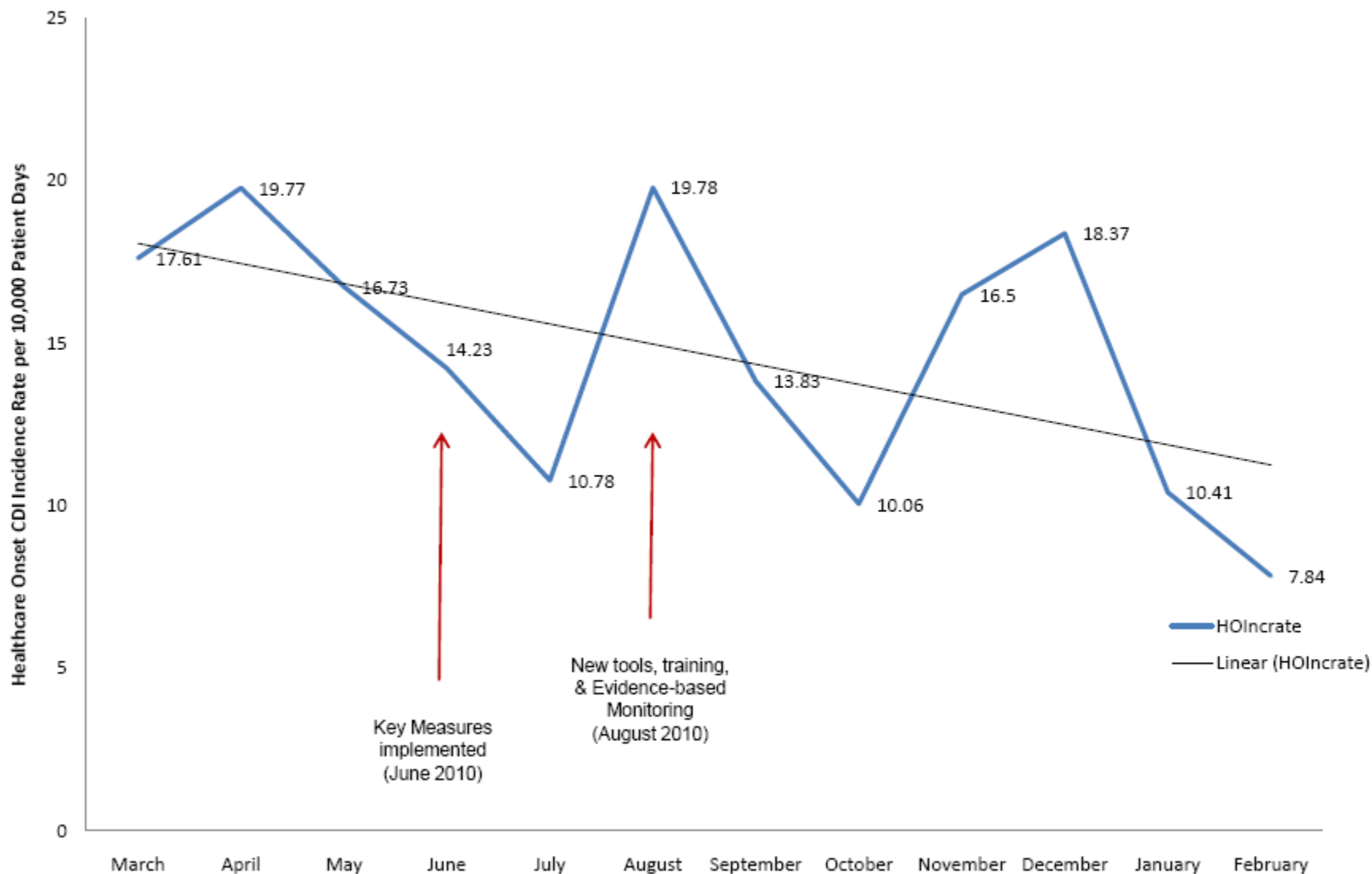
■ Baseline (Facility Wide) ■ Last Period Audit (7S) ■ Current Period Audit (7S)

Hygiene Outcomes – Culture's

Culture Methodology: Total count culture readings post cleaning of HTO surfaces

	7 South Baseline	7 South Post Implementa tion
% HTO Positive Culture	45.5%	12.7%
% HTO Negative Culture	54.5%	87.3%

Advocate Christ Facilitywide Healthcare Onset CDI Incidence Rate per 10,000 Patient Days, March 2010-October 2010



In Summary (People)

- Infection Control attendance at EVS staff meetings.
- Educate
- Presentation to staff on connection to purpose ,communication, transmission of infection
- Connection to outcomes (Data)
- Change the culture

Products



Differences between Cleaning and Disinfection

- Cleaning: removes soil and other organic material
- Decontamination: removes disease producing organisms
- Disinfection: destroys most, but not all, disease producing organisms
- Sterilization: Destroys all forms of microbial life

Survival of Pathogens on Environmental Surfaces

Pathogen

- C.Difficile
- Staphylococci
- VRE
- Acinetobacter
- Norovirus
- Adenovirus
- Rotavirus
- Sars,HIV

Presence on Surface

- > 5 months
- 7 months
- 4 months
- 5 months
- 3 weeks
- 3 months
- 3 months
- 3 months
- Days to week

Levels of Disinfectants

- **Low** – kills some viruses and bacteria and is registered as a “hospital disinfectant”
- **Intermediate** – kills mycobacteria, most viruses, and bacteria, but not bacterial spores
- **High** – kills all organisms except high levels of spores

CDC Guidelines

- CDC published toolkit for Evaluating Environmental Cleaning
- Infection Prevention led program in collaboration with Environmental Services
- Published October 2010

Product Importance

- Chemicals
- Dilution (More is not better)
- Materials
- Validation

Recommendations to Optimize High Touch Surface Cleaning

- Focus on cleaning high-touch objects (HTO's)
- Objective monitoring of the thoroughness of disinfection cleaning of HTO's
- Continuous feedback that drives focused education for ES staff
- Development of reports documenting progress

Validation Process

- EOC rounds using subjective viewing of environment (The White Glove Test)
- Fluorescent Products to mark surfaces or equipment
- ATP is a measurement of all organisms and organic matter via light units
- Cultures

Florescent Gels

- Clear marker applied to HTO's after patient discharge, before cleaning
- Marker reviewed by auditor with black light after cleaning
- Tells just that (Evidence it was just cleaned)

ATP

- Relative Light Units is the measurement of ATP
- High ATP level = Poor Hygiene
- Low ATP level = Good Hygiene
- Caution measures all organic material

Cultures

- Measure CFU's of disease organisms on environmental surfaces
- Costly but more reliable
- Truly evidence based practice

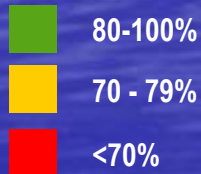
N= 1,688

Current Period n = 536

Focus Points

Report

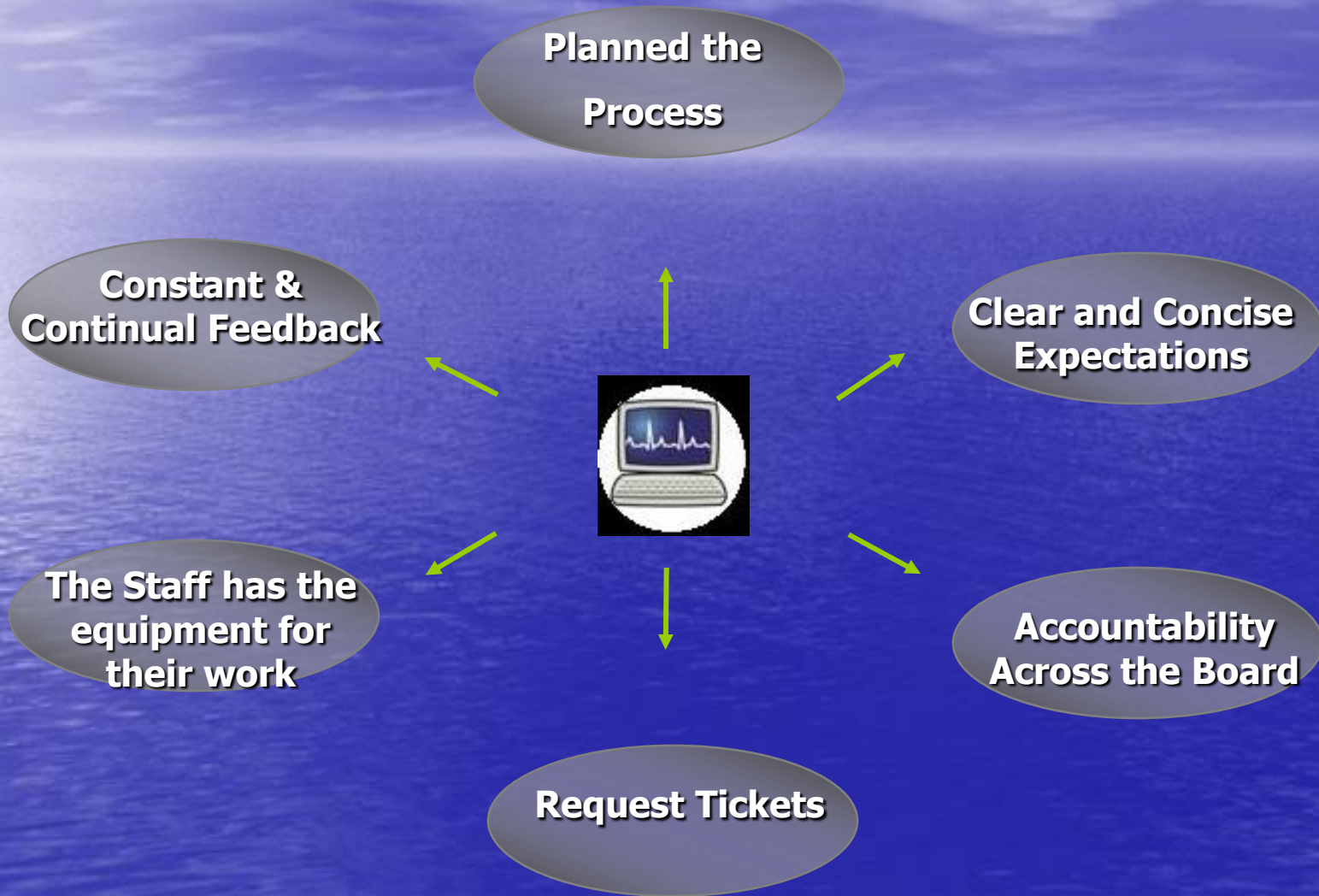
	High Touch Object	Baseline	Q4 2010	Q1 2011	Net Improvement	Trend
PATIENT ROOM	Bed Rail/Controls	12.8%	80.0%	83.3%	70.6%	▲
	Bedside Table Handle	32.7%	93.9%	93.9%	61.3%	▲
	Call Button	23.5%	52.8%	97.3%	73.8%	▲
	Chair			71.4%		
	IV Pole (Grab Area)			73.3%		
	Room Inner Door Knob	14.0%	48.6%	84.2%	70.2%	▲
	Room Light Switch			81.8%		
	Room Sink			90.9%		
	Telephone	46.5%	90.6%	94.3%	47.8%	▲
	Tray Table	26.0%	100.0%	97.2%	71.2%	▼
PATIENT BATHROOM	Bathroom Handrail by Toilet	18.6%	70.0%	80.6%	62.0%	▲
	Bathroom Inner Door Knob	23.3%	70.0%	80.6%	57.4%	▲
	Bathroom Light Switch			73.3%		
	Bathroom Sink	28.9%	61.1%	79.4%	50.5%	▲
	Toilet Bedpan Cleaner	23.3%	50.0%	74.2%	50.9%	▲
	Toilet Flush Handle	31.3%	68.6%	91.4%	60.2%	▲
	Toilet Seat	39.6%	60.0%	94.3%	54.7%	▲
Total Patient Room	25.5%	76.8%	87.4%	61.9%	▲	
Total Bathroom	27.8%	63.4%	82.4%	54.6%	▲	
Grand Total	26.6%	70.3%	85.3%	58.7%	▲	



Summary of Product and Usage

- You can't disinfect until it is clean
 - Choose the right product for the right organism
 - Use the correct dilution
 - Apply for the correct contact time
 - Microfiber technology vs Cotton
 - Monitoring
 - Feedback
-
- Monitoring
 - Feedback

Process



Enhancing Service Delivery

**The daily
Team
Huddle,
where it all
begins!**



Process Planning

- Provide tools needed
- Use tools appropriately
- Make sure all products are labeled and not expired
- PPE available and used appropriately
- Which product for the right surface
- Organize products to prevent cross contamination





Process Planning

- Storage of carts
- Proper dilution
- No food or drinks on cart
- Visual aids for daily cleaning and discharge cleaning
- Visual aids to identify high touch areas
- Start at the cleanest area and progress to dirty

Process

- Identify cleaning schedule for non high touch areas
- Identification process for C-diff rooms which require sporicidal disinfectant
- Clear policy on hand hygiene
- Feedback
- Recognition

Other Tidbits

- Anti-clutter in hallways
- Clear policy for removal of equipment from patient room
- Removal of daily linen from patient rooms
- Linen bags available in every patient room
- Stripping the linen off discharge beds
- Picking up trash when full
- Disposal of isolation PPE properly

Advocate Christ Results



Continuous Improvement & Education

- Metrics
- Topics to Reinforce
- Best Practices

Facility Wide Baseline

- Hygiene quiz results – 60% (6 employees)
- Topic: HAI's'/HTO's

7 South Baseline

- HTO's, best practices, products & tools Launched Feb 2009
- 9 staff trained and 6 supervisors

7 South Post Implementation

Operational Processes

- Cleaning (Discharge)
- Dispenser Accuracy
- Observations



- Discharge Time = 36 min
- Dispensers Inaccurate
- Product/Cart storage; Labeling, PPE, Cross Contamination

- Discharge Time = 45 min
- Dispensers Inaccurate
- Product/Cart storage; Labeling, PPE, Cross Contamination

- Discharge time reduced 24%
- Accurate dispensing (3 of 4 tests)
- Product/Cart Storage; PPE

Hygiene Outcome Efficacy

- Gel Marker - % Passing
- Cultures - % Negative



Gel:

- Overall = 49.5%
- Room = 61.5%
- Bath = 37.5%

Gel

- Overall 59.0%
- Room 65.6%
- Bath 52.6%

Cultures:

• 54.5%

Gel:

- Overall 85.2%
- Room 85.3%
- Bath 85.0%

Cultures

• 87.3%

Satisfaction

- Patient
- Staff



- Staff – likes their job
- Staff rates their job important

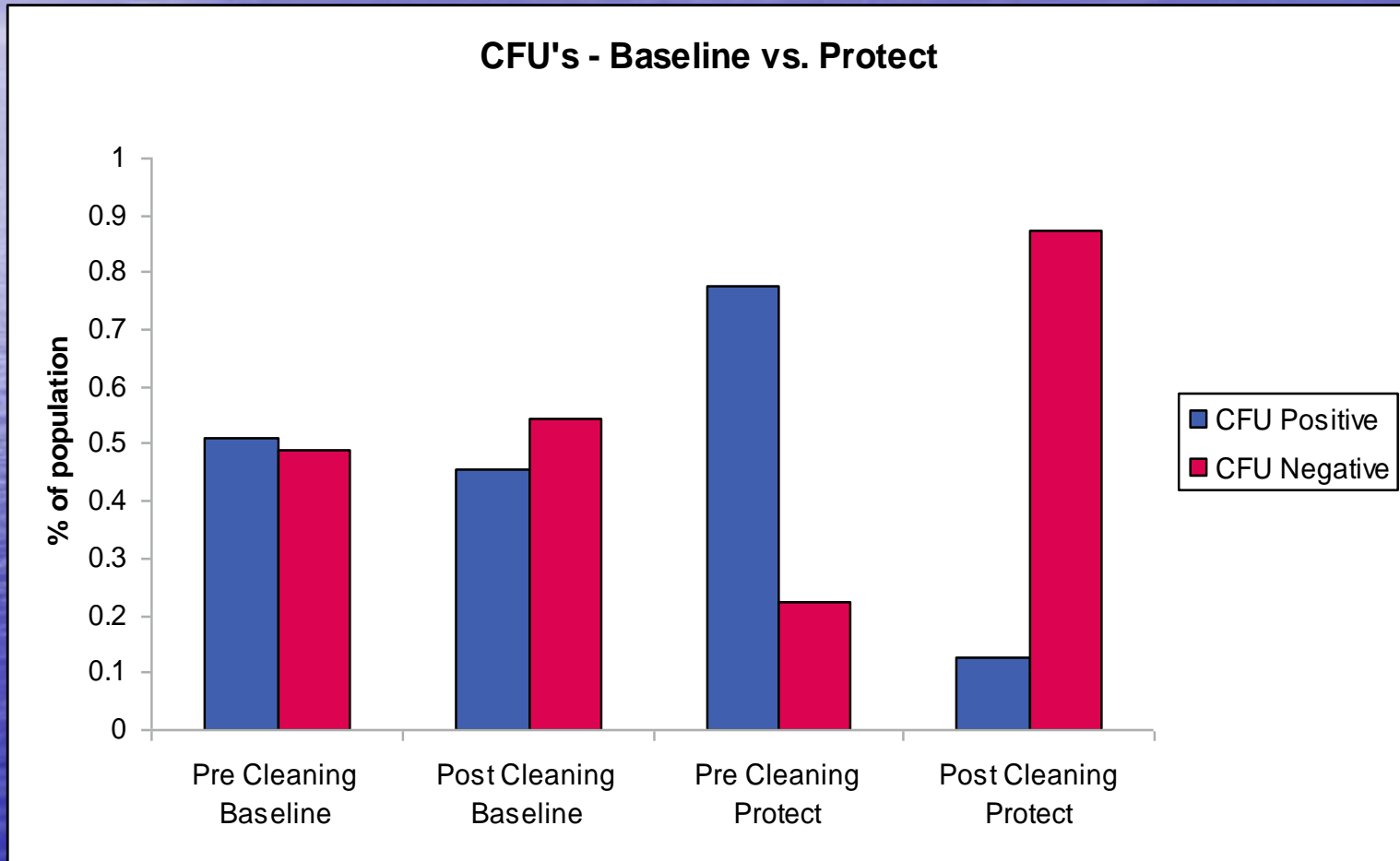
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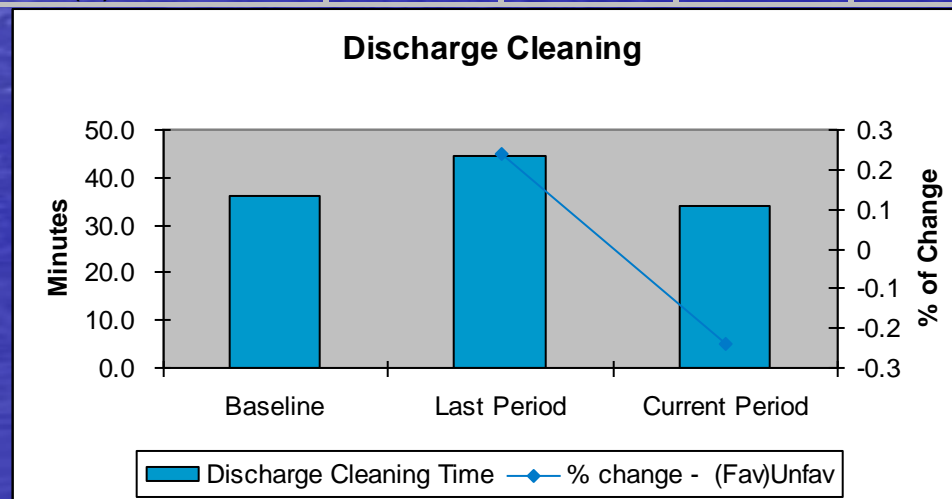
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Advocate Christ Operational Efficiency

Discharge cleaning was reduced on average by 10.6 minutes or 23.8% compared to last period.

Cleaning Description	Average Time	Longest Time	Shortest Time	N
Discharge Cleaning (Baseline)	36 min	55 min	20 min	9
Discharge Cleaning (Last Period)	44.6 min	60 min.	25 min	14
Discharge Cleaning (Current Period)	34 min	60 min.	15 min	11
Variance: (-)Fav/ (+)Unfav	10.6 min	0 min	10 min	



Process Outcomes



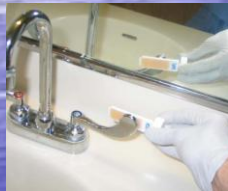
Continuous Improvement & Education

- Metrics
 - Topics to Reinforce
 - Best Practices
- Certify lead cleaners/supervisors
 - Reinforce proper cleaning process (HTO's)
 - Introduce Disinfectant module



Operational Processes

- Cleaning Daily/Discharge
 - Dispenser Accuracy
 - Observations
- Reinforce reasons for appropriate PPE
 - Reinforce need to eliminate cross contamination



Hygiene Outcome Efficacy

- Marking Solution
 - Cultures
- Set up training session to learn, practice, do using gel as training guide
 - Reinforce the importance of HTO cleaning and proper cleaning techniques



Satisfaction

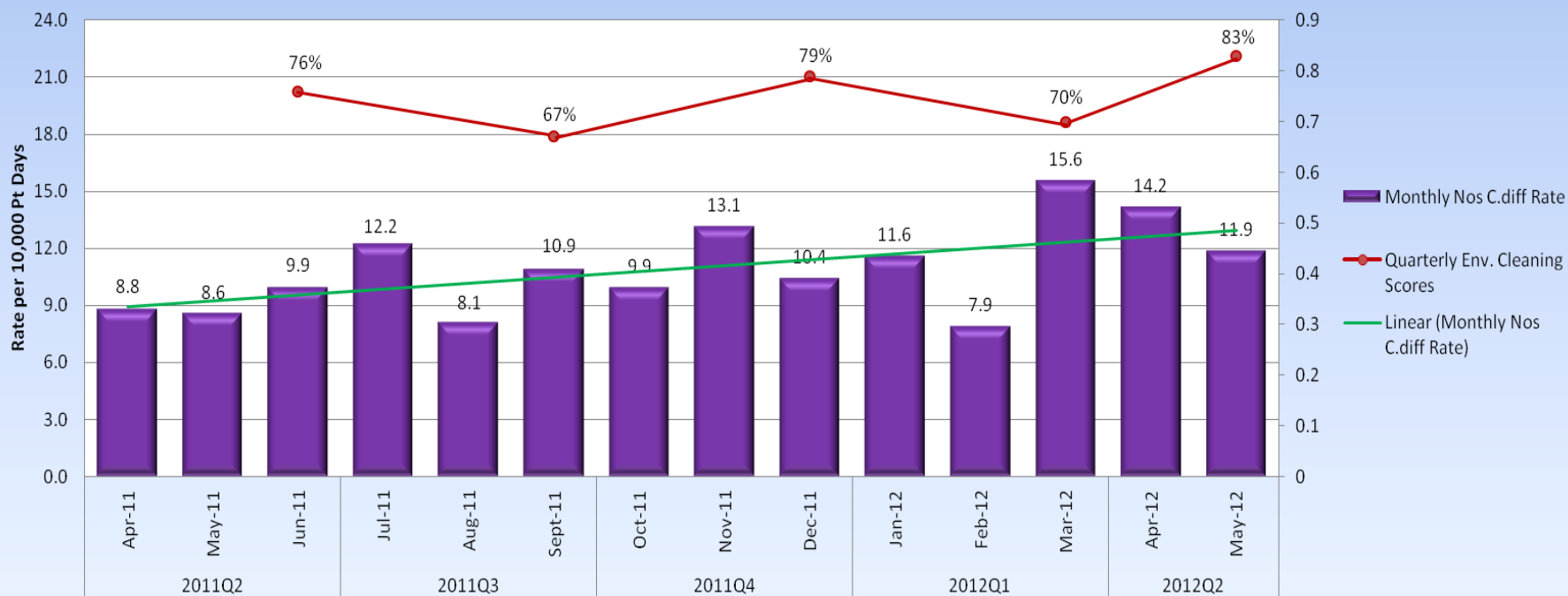
- Patient
 - Staff
 - Nursing
- Provide housekeepers with training to help with patient interaction
 - Work to engage staff through participation in training/certification
 - Expand nursing training relative to role and importance of room cleaning

Process Improvement

- Bed Turn Times July 2009 – 88 min
- Current Turn Time 43 mins
- Consistent Clean Time 28-30 min

Connecting to Purpose

Surveillance-Based
C.diff
2011 - 2012



“Coming Together Is A Beginning

Keeping Together Is Progress

Working Together Is Success”

Henry Ford

COMPETENCY ASSESSMENT

Name: _____ Job Title: _____ Department: _____

Instructions:

Complete the self assessment portion of this document using the key. Record completion of each performance criteria. The evaluator's signature validates the completion of each skill. Complete quiz if attached. Return to department manager for your file.

Assessment Key:

- 1- Needs Improvement
- 2- Can perform independently
Observation
- 3- Independent can teach

Method of Evaluation:

- S - Simulation
- DO - Evaluator Direct

If competency is assessed on multiple dates, (other than the date noted with the signature,) place the date in the Evaluator's assessment column.

Competency Statement:

All staff will display consistent proficiency in performing designated tasks/skills according to established performance criteria and facility standards.

Policies to Review and Learning Resources

- ▲ Facility Isolation signs
- ▲ Patient Room Cleaning Flow Chart
- ▲ C. difficile Patient Room Cleaning Flow Chart
- ▲ HTO job aid

Competency: Preparing and using Chemical Products

Performance Criteria	Met	Not Met	NA	Comments
Wears proper PPE (gloves and goggles) when preparing.				
Uses TM Dilution Management System properly.				
▲ Turns cold water faucet fully open.				
▲ Selects proper product for application.				
▲ Fills cloth and mop bucket to proper level based on number of cloths/mop heads.				
▲ Rinses out measuring dispensing tub AND bucket between chemical change.				
▲ Fills work bottle properly.				
▲ Does not top off.				
▲ Rinses out before refilling.				
▲ Turns cold water fully closed.				
▲ Buckets and work bottles properly labeled.				
▲ Uses flip tops on toilet bowl cleaner bottle.				
▲ Minimizes uses of spray triggers.				
▲ Uses proper chemical for application				

Competency: Using Virasept® to clean C. difficile Rooms according to instructions and facility protocol.

Performance Criteria	Met	Not Met	NA	Comments
Wears gloves and eye protection when preparing and using until surfaces are dry.				
Stores and handles bottle uprights. States the purpose holding upright.				
Uses to clean designated patient rooms.				
Saturates cloth properly.				
Applies chemical to cleaning cloth and/or surfaces.				
Maintains dwell/contact time.				
Washes hands with soap and water after handling chemical.				

Competency: Personal protective equipment is worn according to the job requirement and facility protocol.

Performance Criteria	Met	Not Met	NA	Comments
Wears gloves and eye protection when preparing chemicals.				
Performs hand hygiene before putting on gloves.				
Dons proper PPE based on standard and transmission-based precautions signage.				
Dons PPE in proper order according to CDC guidelines:				
▲ Gown first				
▲ Mask or respirator				
▲ Goggles or face shield				
▲ Gloves				
Change gloves:				
▲ If torn and when heavily soiled.				
▲ At designated times on Patient Room Cleaning Flow Chart.				
▲ Per facility protocol.				
Removes PPE before leaving room EXCEPT airborne removes mask outside of room after door is closed.				
Removed PPE in proper order and technique according to CDC guidelines.				
▲ Gloves				
▲ Face shield or goggles				
▲ Gown				
▲ Mask or respirator				
Performs hand hygiene after removing PPE.				

Competency: Performing daily and terminal cleaning according to Patient Room Cleaning Flow Chart and facility standards.

Performance Criteria	Met	Not Met	NA	Comments
Step 1: Room Entry:				
▲ Looks for door sign.				
▲ Performs hand hygiene.				
▲ Puts on proper PPE.				
Step 2: Removal of Waste:				
▲ Removes visible soil.				
▲ Removes large debris from floor.				
▲ Removes non-standard medical equipment (discharge only).				
▲ Removes waste (regular trash, biohazard).				
▲ Removes linen.				
▲ Handles soiled waste/linen properly to avoid contamination and injury.				
▲ Puts in basket in hallway or takes to soiled utility room.				
Step 3: Preps for Cleaning				
▲ Brings in needed supplies (proper number of cleaning cloths, towel bowl caddy, high duster on discharge)				
▲ Squirts disinfectant into toilet bowl				
▲ High dusts (Discharge only)				
Step 4: Cleans patient room				
▲ Cleans in pattern				
▲ Uses blue cloths (1 blue cloths daily; 2 blue cloth discharge)				
▲ Cleans HTOs and all surfaces/furnishes for daily/discharge				
▲ Puts cloth on floor by door				
Step 5: Cleans patient bathroom				
▲ Cleans in pattern				
▲ Uses yellow cloth				
▲ Cleans HTO				
▲ Cleans surfaces according to facility policy				
▲ Cleans toilet last.				
▲ Swabs toilet bowl.				
▲ Picks up cleaning supplies/soiled cloths and puts on cart.				
▲ Wipes down isolation sign and puts cover page on top. (Isolation room)				
Step 6: Removes gloves and performs hand hygiene.				

Competency: Performing daily and terminal cleaning according to Patient Room Cleaning Flow Chart and facility standards.

Performance Criteria	Met	Not Met	NA	Comments
Step 7: Restocks Room				
▲ Replaces disposables.				
▲ Replaces waste liners with properly color-code bags.				
▲ Replaces linen.				
▲ Makes bed (Discharge only).				
▲ Handles clean linen properly.				
Step 8: Mops room.				
▲ Performs hand hygiene and puts on gloves.				
▲ Put up Wet Floor sign.				
▲ Puts mop heads inside room threshold.				
▲ Mops patient room first.				
▲ Mops patient bathroom				
Step 9: Removes gloves and performs hand hygiene.				

Competency: Using the AIDET Communication Technique

Performance Criteria	Met	Not Met	NA	Comments
Identifies the purpose of using the AIDET principle.				
ACKNOWLEDGES the customer:				
▲ Smiles, makes eye contact, greet customer, and calls them by name in a pleasant manner.				
INTRODUCES self:				
▲ States name and role within Advocate.				
▲ Highlights skills and expertise of self and other healthcare team members.				
DURATION:				
▲ Gives the customer a time expectation.				
▲ Keeps the customer informed as to the amount of time a task will take.				
▲ Includes letting them know if there is a wait time; gives time expectation of that wait.				
EXPLANATION:				
▲ Keeps customer informed by explaining all tasks.				
▲ Communicates clear expectations of what will be occurring.				
THANKS the customer:				
▲ Thanks customer for their time AND,				
▲ Expresses appreciation to the customer for their cooperation and communication				
▲ Asks if there is anything else he/she can do for customer before ending the interaction.				
Non-verbal communication conveys the AIDET principle:				
▲ Makes eye contact.				
▲ Respects the patient's personal space (as possible).				
▲ Listens to what the patient is saying; allows for silence; does not interrupt with his/her own thoughts.				
▲ Ensures body language is relaxed, open and non-threatening.				
▲ Displays a calm manner.				