WHITE PAPER

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The Five Pillars Of Safety In Healthcare

The Power of Clean

"The very first requirement in a hospital is that it should do the sick no harm."

Florence Nightingale

Crothall Healthcare, Morrison Healthcare, Rich Feczko, Steven J. Schweon, Mark Shamash, Steve Danuser

THE POWER OF CLEAN

Compass One's greatest difference is our specialized, leading-edge, best practices delivery model. Our focused, innovative performance within each skill set ensures our support services programs are best in class.

Bobby Kutteh, CEO

Compass One Healthcare is leading the way with intelligent use of innovation, processes and methods with measurable HAI mitigation outcomes. This further validates our Power of Clean and Power of Food efforts allowing for premier service delivery as well as supporting our healthcare clients with the safety of our patients, families, staff, associates and the community as a whole.

Rich Feczko
National Director
Standards & Innovation

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Four Key Take Aways

1. A disciplined strategy based on five critical areas can impact infection transmission. Focusing on **1)** hand hygiene, **2)** process, **3)** surface measurement, **4)** augmentation, and **5)** emerging solutions can mitigate transmission and HAI events. All five must work together in an integrated program fueled by people, protocols and products. The right people is critical – highly trained, engaged, disciplined and passionate people committed to patient safety and environmental hygiene. This synergistic approach ensures optimization of all resources.

2. Optimizing safety in a healthcare environment requires a holistic perspective. First, *The Experience* of everyone in the hospital must be considered. A safe place to heal, visit and work requires that the safety and engaged experience of Patients, Families, Clinical Staff, the Community served and our own Associates be considered. Second, every support service from Environmental services to Food service to Patient Transportation, etc. plays a key role in creating a safe, engaged experience – they are all integrated. Third, safety begins with infection prevention but must include food safety, workplace safety (slips/trips/falls), fire safety, etc. to create a truly safe environment where Patients want to come to heal and Staff want to come to care.

3. Safety and engaged experiences are inextricably linked in the Patient experience. An HAI event can cancel the memory of every smile and kind word experienced. And, in this consumer-driven environment, an HAI incident can impact the Hospital's reputation as that Patient complains to the world in social media. Financial risks expand as CMS relies more heavily on HCAHPS scores each year. Press Ganey's research in multiple White Papers demonstrates that Patient perceptions of "clean" are highly correlated with HAI incidence. Patient perception is reality.

4. Infection prevention is a daily discipline but a pandemic requires heightened expansion. Safety disciplines must be broader, deeper, more frequent and include new technologies. A pandemic playbook must be created that can be activated immediately. Compass One's OMIT (Operational Mitigation of Infection Transmission) was created when SARS occurred in 2003 and was activated upon the expansion of COVID-19 in 2020. It includes actions required of all Compass One support services as well as Supply Chain. It is a "living document" – disciplines are constantly modified and expanded as more is learned in each pandemic event.

"A patient's perception of hospital cleanliness is highly correlated with multiple safety, quality and experience measures."

Press Ganey Environmental Services White Paper 2016

THE POWER OF CLEAN

Executive Summary

Infection Prevention Is The Foundation Of Safety In Healthcare

Compass One Healthcare operates under a disciplined, integrated 5 Pillar strategy supporting the Power of Clean concept. It is built on the clinical reality of clean as well as the perception of clean – patients, families, clinical staff, the community served and our own associates must feel safe in a hospital environment. The 5 Pillars are built on evidence proven to mitigate infection transmission and Healthcare Associated Infections (HAI).

The 5 Pillars strategy applies to every Support Service in a hospital environment. Every one of the 5 Pillars must be addressed in each service to mitigate infection transmission ranging from high-touch Patient surfaces to food trays to mobile biomed equipment to wheelchairs, etc. All services must exercise the same diligent disciplines to reduce infection transmission and HAI.

Focusing on 1) hand hygiene, 2) processes, 3) surface measurement, 4) augmentation, and 5) emerging solutions can mitigate transmission and HAI incidence. All work together fueled by people, protocols and products. The right people is critical – highly trained, engaged, disciplined and passionate people committed to patient safety and environmental hygiene.

Hand hygiene, disciplined processes and surface measurement need augmentation. Technologies such as Ultraviolet-C, electrostatic applications, air purification systems and surface barriers have proven effective supporting the basics of manual cleaning disciplines.

Emerging pathogens and technologies must be continually reviewed. It is critical to review, evaluate and collaborate with forward thinking, solution-driven Partners to determine the safest, most effective and best in class solutions available. Research and adherence to the latest evidence-based practices is critical. Exploration can never stop.

Mission Statement

In the markets we serve, we will be recognized as the premier provider of the highest quality, customer-focused support services.

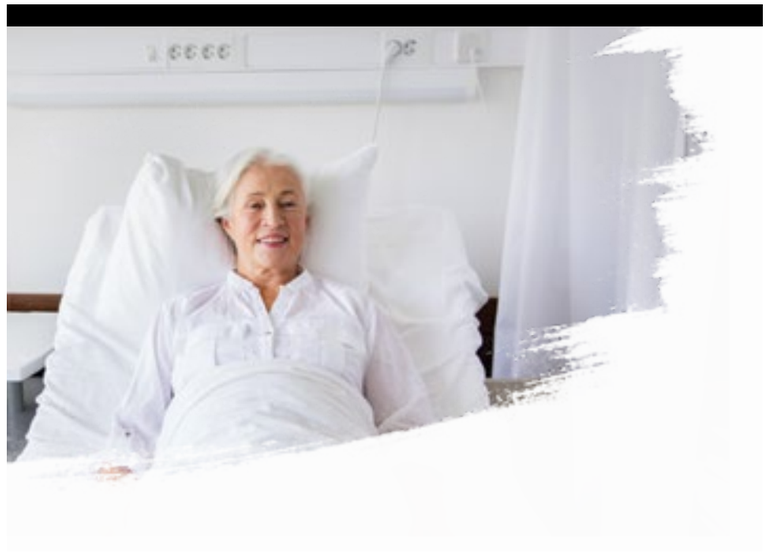
The concept of Safety in Healthcare must be treated holistically. Focus is always on infection prevention, but Food Safety, Workplace Safety (slips/trips/falls), Fire Prevention, etc. must be addressed as well to ensure everyone in the hospital has best experience possible.

Compass One believes that *The Experience* of everyone in a hospital is critical. *The Experience* starts with Patient focus, but Families, Clinical Staff, the Community served and our own Associates must be safe and feel safe. Every Support Service in a hospital contributes to an engaged, safe experience. It starts with Infection Prevention through Environmental Services (EVS) in Acute Care as well as Ambulatory facilities, but must include Food and Nutrition Service (FNS), Patient Transportation (PT), Healthcare Technology Solutions (HTS) and Facilities Management (FM).

The Best Healthcare Experiences Require Both Safety And Engagement

An HAI event can cancel the memory of every smile and kind word experienced. Patients and Families can go to social media to share frustrations on safety and their experience. With HAI incidence rates published in many states and over 687,000 HAI events/72,000 HAI deaths a year,[1] there is significant, credible information available in addition to perception-based social media sources consumers can use to make decisions.

The reality and the perception of clean affects hospital reputations and HCAHPS (Hospital Consumer Awareness of Healthcare Providers and Systems) scores for cleanliness. As patients and family members perceive the facility, so goes the recommendations, ratings and the financial incentives or penalties. Small things, such as a perception of "clutter," can create a perception of "unclean" - perception becomes reality. The Power of Clean is based on impacting clean perceptions and the reality of a clean, safer environment.



It appears that "... Patients can, at some level, judge actual cleanliness."

Multiple Press Ganey Studies Identify The Power Of Patient Perceptions

The Press Ganey White Paper *Influence of EVS, FANS Outcomes on Patient Safety and Loyalty* highlights the impact of Teamwork amongst Clinical and Support Services Staff on Patient perceptions. Compounded missteps in communication among care team members and processes including behaviors of personnel in support service lines, such as EVS and FNS can contribute to poor quality and safety outcomes and harm a hospital's reputation.

The Press Ganey White Paper *Environmental Services-Delivering on the Patient-Centered Promise* demonstrates that cleanliness perceptions by patients can be accurate assessment of HAI incidence. In that study Methicillin Resistant *Staphylococcus aureus* (MRSA) and *Clostridioides difficile (C. diff.)* incidences correlated with the perceptions Patients had of their experience as measured by HCAHPS. It appears that "... Patients can, at some level, judge actual cleanliness."

The Press Ganey White Paper *Food for Thought: Maximizing the Positive Impact Food Can Have on a Patient's Stay* found that "little things" triggering perceptions are more important than even the taste of the food. Press Ganey notes that in today's consumer-driven, value-based health care marketplace, food service represents an important way for health care systems to reduce avoidable suffering and support a nurturing, healing environment.

The 5 Pillars Strategy Is The Foundation Of A Pandemic Response

All Support Services must respond in a pandemic with 1) increased intensity, 2) greater breadth/depth and 3) increased frequency. Additional technologies and protocols must be employed in a pandemic event. Areas disinfected must expand beyond patient rooms and clinical areas to every public area.

Compass One responds with new products, new protocols and new ideas. Consistent with Compass One's passion for *The Experience*, all service lines focused on the safety of Patients, Families, Clinical Staff, the Community served and Compass One Associates.

Compass One developed OMIT in response to pandemics like SARS and COVID-19. OMIT stands for Operational Mitigation of Infectious Transmission. It is a holistic pandemic response based on heightened virus contagion and the potential length of time a virus may remain active on surfaces. Our disinfecting protocols in both occupied and terminal discharge rooms recognize the greater focus on high touch surfaces caused by aerosolized events (sneezing, coughing, etc.).

The OMIT Strategy for Pandemic Events falls into five categories:

1. 5 Pillar Infection Prevention basics
2. Clinical/Impression Areas & Cluster Mitigation
3. Hand Hygiene Adherence, Personal Protective Equipment (PPE) & Training
4. Quality and Adenosine Triphosphate (ATP) Surface Measurement
5. Strategic Adjunct Technology

The protocols, products and training must evolve. As Novel Coronaviruses impact global populations, healthcare professionals and their support teams must consider their pandemic strategies to be forever fluid. Learn. Adjust. Explore new technologies. Flexibility is critical.

Learn. Adjust. Explore new technologies. Flexibility is critical.

This White Paper

- Discusses the association among hospital environmental contamination, pathogen transmission, and patient safety.
- Describes Compass One's 5 Pillar strategic initiatives for reducing environmental contamination, decreasing healthcare-associated infections, and promoting improved patient outcomes.
- Demonstrates Compass One, Crothall, TouchPoint, and Morrison's ongoing commitment to continually being the industry leader and setting the standard for proving specialized support services to hospitals.

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Introduction

The Rising Cost of HAIs

There are 6,146 hospitals in the United States with 36 million annual patient admissions.[2] Daily, about 1 in 31 hospitalized patients has at least one HAI[3], with an estimated 687,000 HAIs in acute care hospitals during 2015.[3] About 72,000 patients with HAIs died during their hospitalization.[3] Contaminated environmental surfaces and noncritical patient care items play a significant role in the transmission of several pathogens, including methicillin-resistant *Staphylococcus aureus* (MRSA) and vancomycin-resistant enterococci (VRE).[4]

Twenty-two percent of the HAIs are the result of surgery; 22% of the infections are pneumonia; 17% originate from the gastrointestinal tract; 13% originate from the urinary tract; and 10% are bloodstream infections, and 15% are other types of infection.[5]

The cost per HAI is variable, depending upon the type of HAI[6]

- Catheter associated urinary tract infection (CAUTI): $1,022-$1,167
- Central line associated bloodstream infection (CLABSI): $8,379-$37,807
- Gastrointestinal (GI): $8,531-$11,749
- Surgical site infection (SSI): $14,572-$40,688
- Hospital acquired pneumonia/ventilator associated pneumonia (HAP/VAP): $19,475-$44,204

The annual cost for the five major infections ranges from $8.3-$11.5 billion.[7] The prevention and control interventions are cost effective and require sustainability to maintain their effectiveness.[8] The 5 Infections include central line-associated bloodstream infection, ventilator-associated pneumonia, surgical site infection, Clostridium difficile infection, and catheter-associated urinary tract infection, but surgical site infections contribute the greatest to overall expenditures.[7]

Reimbursement for preventable infections is declining. The rising costs of treating infection coupled with the knowledge that certain infections can be prevented has led the Center for Medicare and Medicaid's (CMS) Inpatient Prospective Payment System and some private insurers to no longer reimburse for several preventable HAIs.[9] These infections include:

- Catheter-associated urinary tract infections
- Vascular catheter-associated infection
- Surgical site infection, mediastinitis, following coronary artery bypass surgery
- Surgical site infection following bariatric surgery for obesity
- Surgical site infection following certain orthopedic procedures
- Surgical site infection following cardiac implantable electronic device

Clearly, HAIs result in a mounting personal, medical, social, economic, and legal toll, to the patients, their families, friends, and loved ones. One infection, regardless of the type, is one infection too many.

The primary source of HAIs is thought to be the patient's own (endogenous) bacteria.[10] Additionally, patients are routinely exposed to microorganisms that are ubiquitous in the complex healthcare environment. Increasingly resilient and opportunistic bacteria, spores, and viruses are shed from patients and staff, and these pathogens:

- Can contaminate the hospital environment, e.g., *Clostridioides difficile*
- May be transmitted between patients and the healthcare provider through unclean hands and contaminated equipment, e.g., *Acinetobacter baumanii*
- May put other healthcare team members and visitors at risk for acquiring these organisms
- May lead to potential infection with significant morbidity and/or mortality

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Microorganisms are progressively more adept at surviving and reproducing on environmental surfaces[11] while also developing increased resistance to available treatments,[12] posing an eradication challenge to the infection prevention and control, and medical teams. Annually, at least 2.8 million persons become infected with antibiotic resistant organisms, with more than 35,000 individuals dying as a result.[12]

Healthcare leaders need to consider novel and emerging management strategies to achieve operational efficiency with thwarting pathogens and reducing the infection risk. Compass One Healthcare specialized responses to environmental hygiene results in an unwavering commitment to patient and employee safety. This evidenced-based approach integrates leadership, support, training, monitoring, and feedback mechanisms, and integrated with the hospital's infection prevention and control program, to ensure success.[13] Our proactive, proven approach to disinfection cleaning processes sets the industry standard for thoroughness and effectiveness with reducing potential infection risk in the healthcare environment and resulting in improved patient outcomes and satisfaction.

Background

Patients' Perspective

Patients expect their hospital room to be clean to reduce the risk of infection;[14] it is critical that the hospital room is meticulously cleaned and disinfected every day during hospitalization, and, at the time of patient discharge, and prior to the next patient admission. Additionally, patients anticipate a satisfactory and uneventful outcome, and do not want to become ill with a HAI, potentially resulting in additional morbidity e.g. congestive heart failure, extended hospital admission, and possible mortality.

Many variables impact pathogen transmission. Transmission is associated with potential breakdowns, lack of adherence, and failures with infection prevention and control practices: environmental cleaning, hand hygiene, staffing challenges, antibiotic stewardship processes, disinfection/sterilization practices, employee vaccination compliance, shared equipment, hospital census, equipment shortages, patient acuity, prompt initiation of isolation precautions, presenteeism, and facility design may impact a favorable outcome.

All of these variables must be proactively and rigorously addressed to be able to meet patient expectations of a safe hospital experience, while staying in a clean room, in today's competitive marketplace.

Contaminated Environmental Surfaces

One study estimated 20% to 40% of HAIs have been attributed to transmission by the hands of Healthcare Personnel (HCP).[15] Contamination can come from direct patient contact or by indirect contact with contaminated environmental surfaces.[15] While hand hygiene is the most important way to reduce pathogen transmission in the healthcare environment, it is exceptionally challenging to measure adherence, with varying compliance rates across studies.[16]

Pathogens responsible for healthcare-associated infections can be widely found, and linger, in the hospital environment.[17-20] They can be readily acquired on the hand by touching surfaces[21] demonstrating the importance of decontaminating hands before every patient contact.[22]

Environmental surfaces and equipment can harbor pathogens and bioburden. Patients are the prime source for environmental contamination; surfaces within the patient's vicinity, also known as the "patient zone"[23] that are frequently touched by the patient and HCP have an increased contamination frequency than other sites.[24] This contamination may contribute to the spread of disease-causing, multidrug-resistant organisms (MDROs), such as MRSA (Methicillin resistant *Staphylococcus aureus*), VRE (Vancomycin resistant Enterococcus), and *Clostridiodes difficile*.[24-25]

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Surface Contamination and Pathogen Acquisition Risk

Patient Admissions carry risk to the environment. Epidemiological studies have shown[13, 24, 26] that patients admitted to rooms previously occupied and contaminated by patients with these pathogens are at significant risk of acquiring these organisms from contaminated environmental surfaces that were not properly cleaned and disinfected upon discharge of the previous patient.

Microorganism Transmission

Patients[24] and HCP can shed bacteria, spores and viruses into the hospital environment, creating potential threats to other staff members, patients and visitors. Microorganisms may be attached to droplets, skin scales or other particles, and disperse through the hospital environment, where they have the ability to survive for hours to days to months (Fig. 1).[27] Microorganisms can be transferred from contaminated environmental surfaces, equipment, contaminated HCP hands and gloves, as well as by family members and other visitors.

Proximity carries HAI risk. Transmission of many healthcare-associated pathogens is related to contamination of near-patient surfaces and equipment.[18, 28-29] Environmental contamination depends on the following:[24]

- The degree of patient shedding; patients with infections shed more organisms than those colonized
- The number of culture-positive body sites
- Sampling methodology for measurement
- Difficulty of cleaning/disinfecting the environment
- Presence of an ongoing outbreak
- Diarrhea, with widespread contamination e.g. bedframe, siderails, etc.
- Patient characteristics, e.g., incontinence, poor personal hygiene habits

In addition, horizontal surfaces have a greater number of microorganisms and more contamination than vertical surfaces, ceilings, and intact walls.

Figure. 1 [27]

Lingering Contamination

Pathogen	Length of Survival
Acinetobacter	3 days - 5 days
Clostridum difficile	5 months
Enteroccocus, including VSE[1] and VRE	5 days - 4 months
Klebsiella	2 hours ->30 months
Stsphylococcus aureus, includoing MRSA	7 days - 7 months

Importance of Cleaning and Disinfection

Cleaning, the removal of soil and contaminants from surfaces, is recognized as a vital component of the intervention package required to reduce hospital infection.[29] Friction is required to remove surface contamination and disinfection destroys pathogens. Disinfection results in destroying pathogens. In addition to the thoroughness, efficiency, and time spent cleaning the room, the type of materials used in environmental surfaces and the design/complexity/amount of equipment in a patient's room will impact cleaning effectiveness.

Effective, daily cleaning and disinfection will decrease the number of environmental pathogens, reduce the risk of transmission and potential infection, promote patient and HCP safety, and be an integral part of a hospital's infection prevention and control plan. It is highly likely that cleaning practice plays a larger role in positive outcomes than does the product used.[30]

Daily Cleaning and Disinfection Challenges

Numerous clinical studies indicate thoroughness of disinfection cleaning may be suboptimal and can be significantly improved.[31] Environmental surface contamination may contribute to the spread of disease[24] and potential infection by contaminating HCP hands, gloves, uniforms, gowns and equipment. Several significant pathogens, including MRSA, VRE, *Clostridiodes difficile* spores and *Acinetobacter baumannii*, can survive under certain conditions for four to five months or more.[24] Norovirus, a pathogen known for causing severe gastroenteritis, can survive for a week or more.[24]

The number of microorganisms on a surface is impacted by:

- Amount of surface moisture
- Amount and type of activity taking place in the immediate vicinity
- Amount of air flow
- Prevailing ambient temperature
- Number of people interacting with the environment
- Type of environmental surface and its ability to foster microbial growth
- Biofilm development on equipment and furnishings
- Application of an antimicrobial coating

Environmental surface contamination may contribute to the spread of disease

Complex hospital environments may result in cleaning and disinfection challenges. A surface may appear "clean" but still harbor pathogens due to their invisibility. Resultantly, visual inspection alone is not a reliable indicator of cleanliness. Instead, environmental cultures, fluorescent markers, and Adenosine Triphosphate (ATP) bioluminescence can be used to assess cleanliness.[29]

Frequent environmental contamination has been implicated as a contributing factor during protracted outbreaks of MRSA, *Clostridioides difficile*, VRE, Acinetobacter *baumannii*, and Norovirus.[24] Environmental surface contamination with pathogens can be transmitted onto the hands of HCP and may spread disease-causing organisms like MRSA, VRE and *Clostridioides difficile* to the patient.[24] Evidence exists that improved cleaning regimens are associated with the control of outbreaks[32] and bacterial transmission.[33]

Regulatory and Governmental Agencies' Perspectives

Regulatory and governmental agencies recognize the importance of environmental hygiene to reduce infection - refer to Figure 2. These agencies include the Centers for Medicare and Medicaid Services (CMS)[34] and The Joint Commission[35] (both the Standards and National Patient Safety Goals), and the Centers for Disease Control and Prevention (CDC).[36] These organizations are continually increasing their recommendations and standards to reduce the infection risk.

The regulatory and governmental agencies are requiring measurable data to demonstrate hospitals are focusing ongoing efforts with reducing HAIs. Part of the evolving regulatory and governmental healthcare emphasis is to supervise, inspect, analyze and optimize the thoroughness of cleaning and disinfection to ensure safe patient care. Organizations should not 'prepare' for a survey; instead, they should always be 'ready' for a survey.

A surface may appear "clean" but still harbor pathogens due to their invisibility.

482.42 Condition of Participation: Infection Control

"...The hospital must provide and maintain a sanitary environment to avoid sources and transmission of infections and communicable diseases."

Standard EC.02.06.01

"Areas used by patients are clean and free of offensive odors" (The Joint Commission. Accreditation Program: Hospitals)"

Figure 2. The CMS and Joint Commission regulatory requirements.

Importance of a Clean Environment

There is generalized agreement that a clean environment is necessary to provide both good standards of hygiene and maintain patient and staff confidence.[37-38] An effective environmental hygiene program is one of the most important infection prevention strategies to prevent pathogen transmission and protect patients and staff.[4]

Patient satisfaction surveys also question the hospital's cleanliness. Patients may subjectively consider hospitals "dirty" and will associate this with a general lack of care.[14,38] The news and social media also have a heightened interest in environmental hygiene, with reporting on "dirty hospitals." [39] Many states now have public reporting of hospital infection rates, with diminished reimbursement in some situations, for having higher-than-expected infection rates. The hospital must continually strive to meet community standards and exceed expectations to avoid negative outcomes, resulting in patient harm. The impact of negative media coverage can adversely affect the bottom line.

A clean, disinfected environment may promote a healthier workforce. HCP who work in close proximity to patients, including those who provide either direct or indirect patient care, need to stay healthy to come to work, to minimize the potential of spreading illness to patients and co-workers, and reduce the infection risk to their families and other community members.

Meeting the Challenges

Healthcare providers must align their operations to more efficiently meet HAI challenges. Effective administration and management of environmental services resources are critical for improving processes and maintaining a safe and clean environment for patients, visitors, and healthcare personnel.

The news and social media also have a heightened interest in environmental hygiene, with reporting on "dirty hospitals."

The Compass One Healthcare Approach To Safety For All Stakeholders

The Power of Clean

Compass One's evidenced-based, integrated Power of Clean program to promote safety for Patients, Families, Clinical Staff, the Community and Compass One Associates is built on the 5 areas identified as the most effective in reducing HAI incidence. This approach is a critical factor in supporting the mitigation of HAI events within the hospitals we provide services to.

The Power of Clean rests on these 5 Pillars of Safety. The program supports infection prevention through practical performance outcomes, regulatory adherence and scientific validation to optimize safety:

- Pillar 1 - Hand hygiene
- Pillar 2 - Processes
- Pillar 3 - Measurement
- Pillar 4 - Augmentation
- Pillar 5 - Emerging Solutions

All Compass One services and Associates contribute to a safer environment. Compass One incorporates the same 5 Pillar disciplines in all Crothall Services and Morrison's Food Services. Working hand in hand with Clinical Staff *The Experience* is safer – a safer place to heal, to visit or to work.

Compass One incorporates the same 5 Pillar disciplines in all Crothall Services and Morrison's Food Services.

The ultimate goal of the 5 Pillars is to improve *The Experience*. A smile or kind words from an engaged staff member impacts the overall experience but ultimately safety trumps caring touch points. Engagement is very important to the overall experience but cannot override an HAI event. The 5 Pillars addresses the *reality* of clean and recognizes the importance of *perception* of clean to impact *The Experience* of every stakeholder:

- Patient
- Family/Guest
- Clinical Staff
- Community
- Compass One Associates

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Pandemic Response

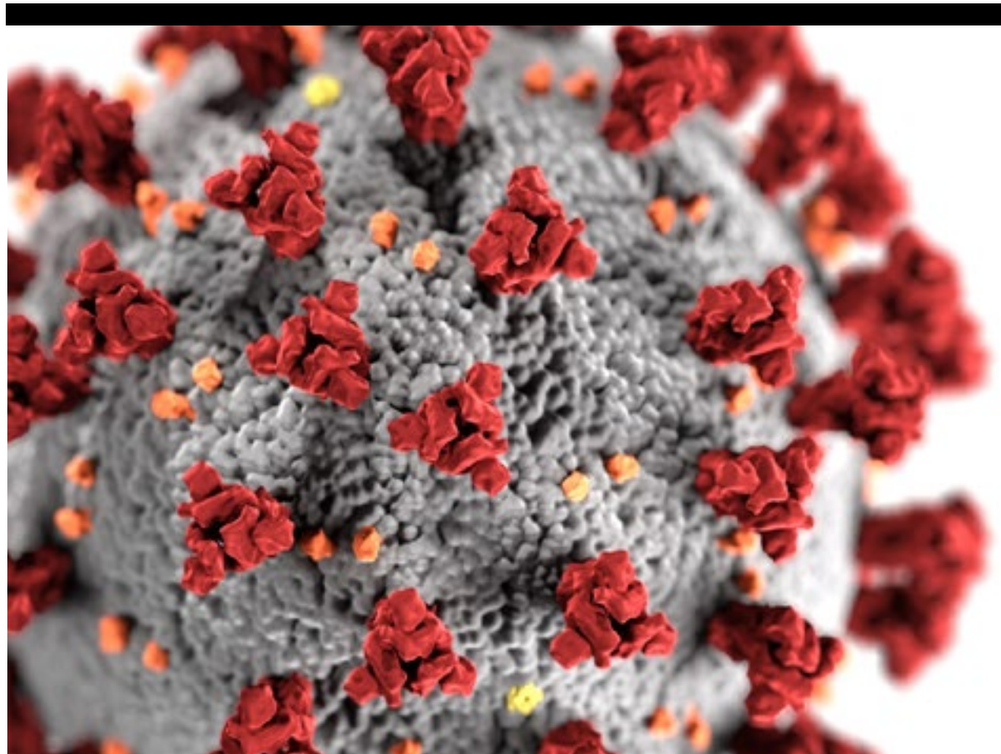
All Support Services must respond with 1) increased intensity and 2) greater breadth/depth/frequency. Additional technologies and protocols must be employed in a pandemic event. Areas disinfected must expand beyond patient rooms and clinical areas.

Compass One responded by employing new products, new protocols and new ideas. Consistent with Compass One's passion for *The Experience*, all service lines focused on the safety of Patients, Families, Clinical Staff, the Community served and Compass One Associates.

Environmental Services

Environmental Services (EVS) is integral to any Infection Prevention response. Cleaning and disinfecting more areas and with a broader spectrum of products can impact the spread. Crothall EVS added protocols to their already intense processes and expanded the footprint of treatments.

Compass One developed OMIT in response to pandemics like SARS and COVID-19. OMIT stands for Operational Mitigation of Infectious Transmission. OMIT is a holistic process focused response based on heightened, pandemic-like virus contagion and the potential length of time a virus may remain active on surfaces. Our disinfecting protocols in both occupied and terminal discharge rooms recognize the greater focus on high touch surfaces caused by aerosolized events (sneezing, coughing, etc.).



The OMIT Strategy for Pandemic Events falls into five categories:

1. 5 Pillar Infection Prevention basics
2. Clinical/Impression Areas & Cluster Mitigation
3. Hand Hygiene Compliance, PPE & Training
4. Quality and ATP Surface Measurement
5. Strategic Adjunct Technology

In a pandemic event cleaning and disinfection protocols must expand. The 5 Pillars foundation does not change but the core concepts are widened and then adjusted to meet the areas of greatest infection risk. Compass One Healthcare has a proven and robust infrastructure for cleaning and disinfecting, deployment as well as labor allocation, related to Pandemic Event Management.

OMIT is a holistic process focused response based on heightened, pandemic-like virus contagion and the potential length of time a virus may remain active on surfaces.

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Disinfecting includes adherence to pandemic-qualified Environmental Protection Agency (EPA) registered disinfectant and CDC evolving pandemic guidelines. Service level frequencies and requirements are heightened:

- **Occupied Patient Room - 6' space bubble.** Incremental focus on high touch surfaces is necessary including pivoting based on the patient severity level/acuity. Frequencies are monitored based on PPE conservation as well as patient level of progress and recovery.
- **Terminal Discharge Room** Negative pressure vs. positive pressure rooms including Emergency Room pre-admission treatments vary accordingly to risk of transmission. Isolation room cleaning with heightened focus on restroom, high touch, bed and mattress surfaces is required. ATP surface measurement is performed to validate surface disinfection, particularly high touch. Further, adjunct technology, such as UV-C is used to further mitigate virus spread.
- **Impression Area - public or non-clinical spaces.** Reducing/mitigating virus contamination in spaces such as lobbies, elevators, public restrooms, cafeterias, etc. is required. Focus on railings, door knobs/push bars, elevator floor key pads, rails, telephones, ATM machines, etc…with frequencies corresponding and heightened based on travel volumes in each space/area. The safe use of adjunct technology, including UV-C, electrostatic, airborne mitigation solutions as well as barrier solutions are proven to support manual applications, typically at low level people traffic volume time periods.
- **Cluster Mitigation** Virus contamination mitigation is extended from Impression Areas (noted above) to Offices, Nurse Stations, Clinical Unit Restrooms, Corridors, and all corresponding high touch surfaces. The safe use of adjunct technologies supports airborne aerosolized droplet mitigation with airborne pathogen solutions as well as high touch surface manual disinfecting including surface barrier application.

Strategic Adjunct Technology The contagious nature of a coronavirus demands use of Specialized Technology. These solutions are clinically validated to support the mitigation of infectious transmission:

- **Surfacide UV-C technology is effective on coronaviruses** as well as other infection risks like C. difficile, MRSA, etc. In a pandemic UV-C application is expanded to enclosed public areas such as restrooms and office spaces after manual surface disinfection. It is also a primary tool in Cluster Mitigation. (Read more - APPENDIX #36-40)
- **Scientific Air Management mobile device mitigates aerosolized droplets** in all areas of the facility including public lobbies, offices, in patient units, etc. The device uses UV-C technology to capture airborne pathogens in large volumes of fast-moving air, holding pathogens close enough and long enough for total UV-C eradication. (Read more - APPENDIX #43-48)
- **PreVasive Noroxy Cdiff supports virus mitigation by way of electrostatic spray.** This adjunct technology is used in terminal discharge as well as strategically in enclosed areas, with no people traffic, in lobbies, restrooms, etc. (Read more - APPENDIX #41-42)
- **GR-AD Pro surface barrier applications can kill pathogens for up to 90 days.** Even after manual cleaning these residuals are effective on elevator floor key pads, phones, remote controls, bed rails, etc…utilizations range from micro fiber manual wipe to electrostatic application. (Read more - APPENDIX #49)

The Compass Group promptly released a novel coronavirus fact sheet to reinforce existing health & hygiene standards and to heighten awareness with infection prevention and control protocols, and crisis management plans in preparedness for further escalations. As the outbreak continues to evolve, additional information is released to maintain the health and safety of all employees.

Reducing/mitigating virus contamination in spaces such as lobbies, elevators, public restrooms, cafeterias, etc. is required.

Fact Sheet - Novel Coronavirus (COVID-19)

Health and safety is our number one operational priority at Compass Group and consequently, we are taking the current Coronavirus outbreak very seriously. We rapidly convened a monitoring group in the Asia-Pacific.

Compass One promptly implemented numerous interventions to heighten the awareness to this threat and reassure hospital and healthcare organizations their disinfectant product line is effective against this pathogen:

Coronavirus Approved Disinfectants & Wipes

Provider	Product Name	Active Ingredient	Delivery	Contact Time
Diversey	Oxivir 1	Hydrogen Peroxide	RTU – Wipe	1 minute
Diversey	Oxivir TB	Hydrogen Peroxide	RTU – Wipe	1 minute
Diversey	Oxivir Five 16	Hydrogen Peroxide	Concentrate – Dip and use method	5 minutes
Diversey	Avert Sporicidal	Bleach	RTU – Wipe	1 minute
Diversey	Virex II 256	Quaternary	Concentrate – Dip and use method	10 minutes
Diversey	Virex Plus	Quaternary	Concentrate must be at 1:128 – Dip and use method A	5 Minutes
Pervasive	Noroxycdiff	Peracetic Acid	Electrostatic spray application	7 minutes – 15 minute post discharge clean process time
Clorox	Clorox Healthcare Bleach Germicidal Wipes	Bleach	RTU Wipe	1 minute
Clorox	Healthcare Hydrogen Peroxide Cleaner	Hydrogen Peroxide	RTU Wipe	1 minute
Clorox	Healthcare Fuzion Cleaner	Hydrogen Peroxide	Spray	1 minute
PDI	Sani Prime	Quaternary / Alcohol	RTU Wipe	1 minute
PDI	Super Sani Cloth	Quaternary	RTU Wipe	2 minutes
PDI	Super-Cloth Bleach	Bleach	RTU Wipe	1 minute
PDI	Sani-Cloth AF3	Quaternary	RTU Wipe	3 minutes
SSS	Perisept	Non-bleach-based sporicidal	Concentrate – Dip and use method	2 minutes

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Ambulatory Environmental Services

In a pandemic Patients are even more likely to visit Ambulatory sites – they are far less likely to go to the hospital for the initial evaluation. The expanded areas of OMIT treatment must be executed in Ambulatory sites to mitigate transmission.

- **Areas disinfected must expand beyond Exam rooms to waiting areas, restrooms, etc.** As in every pandemic activity, intensity and breadth/depth must be expanded to any site where transmission could occur. Cluster mitigation is critical in Ambulatory sites also.
- **ATP measurement areas must be expanded in Ambulatory.** Use of Hygiena ATP is required in exam rooms, public areas, waiting rooms and office areas. The use of ATP measurement on the high touch surfaces is a vital part of transmission mitigation.
- **Electrostatic application adds another level of disinfection to manual cleaning protocols.** This adjunct technology is used after hours when there is no one present. The spray delivery system enables complete surface coverage.
- **Surface barrier residual applications provide "always-on antimicrobial action".** These products work continuously for 90 days, even on surfaces re-contaminated with new pathogens and after cleaning with daily cleaners and disinfectants. Electrostatic spray provides complete surface coverage as well as in all critical Ambulatory areas.

Food Service

Patient Dining

Create alternate food ordering systems. Use the telephone to contact patients placed in isolation for food preferences to save waste and improve patient satisfaction. Room entering is limited to Nurses reducing additional transmission risk and reducing demand on PPE.

Nurses pass trays. Nurses passing trays to both infected and non-infected Patients reduces exposure for Patients and Clinical Staff alike. Use disposables to eliminate tray retrieval and person-to-person contact.

Shut down pods and service lines in production based on census. Work with Hospital Staff to build new labor models that match staff and patient populations. Reallocate labor to meet the needs of the hospital as census levels fluctuate.

In a pandemic Patients are even more likely to visit Ambulatory sites.

Use disposables as appropriate. Disposables reduce the risk of handling and transmission. Use hard top lids to retain heat on patient trays– not disposables. While the hard top lids must be collected and disinfected, disposables reduce dish time, improves service recovery time and reduces contact.

Scale back menus to encourage "Chef's Special of the Day". This reduces production and manages labor and product cost in the kitchen. In high census locations shift to Non Select menus. While this removes Patient choice, each Patient can be assured they are getting the diet-appropriate meal of the day.

Retail Food Service

Eliminate all self-service stations. Salad bars, coffee/tea stations, fountain beverages must be replaced with Grab n' Go options. Salad bars must be replaced with made-to-order salad stations. Offer individual pizza slices. Items like fruit and desserts must be individually wrapped.

Cafeterias must be re-designed. Social distancing must be enforced with signage and floor decals prominently installed. There must be limited distanced seating or no café seating at all. No outside visitors are allowed. All Associates must be masked and gloved and contactless ordering and check out must be installed.

Wrap/bag all bagels, sliced breads, muffins and pastries. Offer single serve packets of cream cheese, butter, jam and peanut butter. No personal coffee mugs allowed.

Create new convenience services. Add pop-up markets, grocery items, take home meals, pizza programs, etc. Offer a farm stand. Install Cashier-less smart markets.

Social distancing must be enforced with signage and floor decals prominently installed.

Patient Transportation

Bolster Patient Observation services. Some high-risk patients require supervision 24/7. During a pandemic, hospitals and their support services teams must relieve nurses from observation duty so they can treat others who are very ill. Shift some patient transportation staff to patient observation to monitor patients requiring 1:1 observation.

Redeploy Staff to support Nursing. Limit exposure from transports from vehicles to inside the hospital - redeploy transporters who typically provide curbside service to help elsewhere. Transporters can be provided education to help nurses with patient temperature checks, documenting information, etc.

Clinical Engineering

Equipment disinfection is critical as they are high-touch surfaces. Enforce "dirty/clean" area segregation. Ensure all equipment coming into biomedical engineering workshops and storage areas is segregated into "dirty". Employ manual cleaning and adjunct technology as appropriate to disinfect. After thorough disinfection move to the segregated clean equipment area.

Track equipment used with infected Patients. Utilize computer maintenance management system (CMMS) to identify and track equipment designated for coronavirus-only use. Special coding can help your hospital easily track pandemic inventory and make important decisions quickly as your hospital's equipment needs change.

Facilities Management

Convert Regular Patient Rooms to airborne isolated rooms. During a pandemic, all hospitals should have a plan to convert regular patient rooms to negative pressure rooms and identify other spaces that can be converted for patient care. With stringent restrictions on guest entry, some hospitals have transformed lobbies into airborne isolation rooms.

Oxygen Supply Systems are under enormous demands in a pandemic. The current treatment process heavily taxes both the bulk and cylinder supply. Wear and tear are beginning to show on parts of our system because of additional usage; many systems are reaching their limits. High usage of liquid oxygen causes the vaporizers to frost up and impact capacity. Create a "hot water wash down" on the vaporizer to reduce frost buildup. Reach out to your vendors and supplier to ensure you're prepared.

Supply Chain

Leverage all supplier relationships early to mitigate shortages. Compass One uses the power of Compass Group's FoodBuy purchasing arm to secure PPE items – respirators, masks, eye protection and barrier gowns are critical during all stages of a pandemic. Sanitizing agents such as bulk disinfectants and hand sanitizers should be acquired early but when surges occurred, emergency ordering including drop shipments must be executed.

Clear, frequent communication with Suppliers is critical. Our Category managers communicate regularly with suppliers and distributors to identify potential shortages and make adjustments before outages occur. In addition, we provide consumption data to them so they can adjust production based on true demand.

Establish a cross-functional pandemic task force. It should include members of sourcing, category, communications, quality assurance and distribution teams to develop mitigation plans and ensure quick response to changing market conditions. The Task Force should meet daily to assess the latest supply challenges, secure product, and identify alternative routes to market when necessary.

Pandemics increase demand on specific products. As food service shifts to "Grab n' Go", multiple products will be needed in greater demand – disposable, plastic wrap, shells, etc. Patient dining shifts to disposables increasing pressure on trays, plastic ware, etc. In addition, as items like fresh fruit must be wrapped, there is additional demand for plastic wraps. Shelf stable food items also face increased demand.

Demand increases for food options that require less labor. As foodservice locations close down or the kitchens are forced to run with reduced staff, shift to more Grab 'n' Go options, including pre-wrapped sandwiches and fully prepared meals. Heat and serve products are also alternatives for those looking to reduce the complexity of food preparation.

During a pandemic, all hospitals should have a plan to convert regular patient rooms to negative pressure rooms and identify other spaces that can be converted for patient care.

PILLAR 1

HAND HYGIENE

Hand hygiene is the #1 way to prevent the spread of infection.

Centers for Disease Control and Prevention[40]

(https://www.cdc.gov/handhygiene/pdfs/CDC_HandHygienePoster.pdf)

Hand hygiene adherence is required of all Compass One Associates. Pathogens can be transferred by anyone in Environmental Service, Food Service, Patient Transportation and Facility Management. A wheelchair or food tray can be a source of pathogens as easily as a bed rail in a Patient Room if hand hygiene is not performed. Compass One Associates understand this risk and follow hand hygiene policy and procedure.

Many pathogens that are responsible for infection are transmitted on the hands of healthcare personnel (HCP). Eighty percent of common infections are spread by the hands.[41] The CDC notes that HCP practice hand hygiene about half the time they should.[42] Effective hand hygiene can clean contaminated hands and prevent pathogen transmission to others. When HCP do not perform hand hygiene as indicated, they put themselves, their patients, and their co-workers at risk for serious harm. Patients primarily acquire bacteria from the hands of health care workers that are contaminated by the environment.[43]

Eighty percent of common infections are spread by the hands.

The patient is the prime source for environmental room contamination. Frequently touched surfaces by both the patient and HCP, such as side rails, bedside tables, etc., within the "patient zone," have increased contamination than other surfaces within the hospital room. Bacteria and their spores can survive for days to weeks to months on patient care equipment and other surfaces. While gloves can prevent hand contamination, they do not provide an absolute barrier and are not considered a substitute for hand hygiene. Additionally, the hands can become contaminated during the glove removal, or doffing process.

The CDC has clear recommendations when hand hygiene should be performed.[48] Compass One endorses these recommendations, in addition to supporting The Joint Commission's National Patient Safety Goal addressing hand cleaning[45], and additionally believes hand hygiene should occur, at a minimum, upon entry and exiting the patient's room. To continually ensure their extensive employee training with evidenced-based practices coupled with alcohol-based hand rub (ABHR) products that exceed current requirements with proven, third-party in vivo testing-validated efficacy, Compass One has partnered with both GOJO Industries and Handwashingforlife® Institute.

Compass One has chosen GOJO Industries (www.gojo.com), the inventors of PURELL™, as their preferred hand hygiene provider. The CDC recommends ABHR use unless the hands are visibly dirty or contaminated..[44] PURELL™ is the #1 hand sanitizer in hospitals around the country today. Compass One's commitment to extensive employee training with evidenced-based practices coupled with alcohol-based hand rub (ABHR) products that exceed current requirements with proven, third-party in vivo testing-validated efficacy, makes this a ideal choice. GOJO products are formulated to be used repeatedly without damaging the skin, thus encouraging more frequent use and maintaining healthy hands.

GOJO Industries has been working to improve hand hygiene around the world. In fact, their stated corporate purpose is to "Saving Lives and Making Life Better through Well-Being Solutions." GOJO's primary focus is on making proper hand hygiene compliance easy for healthcare workers, patients and visitors. To do this, they focus on 4 key principles:

1. **Develop formulas of soaps, sanitizers and lotions that people like using** – Their PURELL® and PROVON® soap, sanitizer and lotion formulas are both efficacious and well-liked by users to help maintain healthy skin.
2. **Make these formulas available when and where they are needed** – The product comes in reliable dispensers and bottles conveniently placed throughout a hospital.
3. **Provide education for staff, patients and visitors that's easy and understandable** – Leveraging the CDC and WHO guidelines and best practices, GOJO offers a wide range of education tools.
4. **Make it easier to track actual hand hygiene compliance rates** – Delivering cutting-edge compliance monitoring technology and clinician-based support via their Smartlink® solutions.

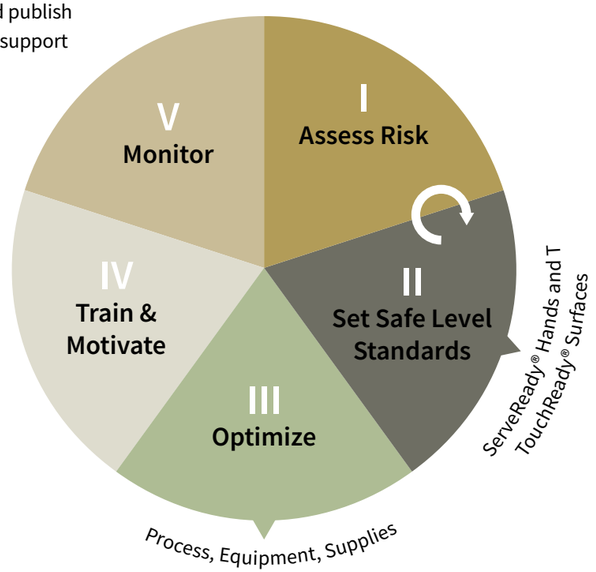
GOJO relies upon a "3 Leg Strategy". To achieve clinical benefit GOJO focuses on 1) Formulation, 2) Dispensing and 3) Compliance Programs. Formulation and dosage will achieve antimicrobial efficacy but compliance on when, how and how often hand washing occurs achieves true clinical benefit. Skin health and skin feel promote usage. (Read more - Appendix 1-5)

Clearly, hand hygiene noncompliance is a major contributor of HAIs.[46] GOJO continues to extensively study all areas of hand hygiene and publish research findings in the peer reviewed medical literature to support improving hand hygiene practices.[47]

The Handwashingforlife® Institute (www.handwashingforlife.org) is devoted to advancing the science of hand hygiene with the purpose of reducing the incidence of HAIs and foodborne illness caused by poor hand hygiene practices. Their strategic solutions with "overcoming underwashing" includes assessing the risk, setting safe level standards, optimizing the conditions for success, training and motivation, and monitoring performance, with the intent of creating a "new cleanliness culture"; refer to Handwashingforlife® Institute infographic. (Read more - Appendix 6-7)

The handsOn™ 5-Step Process to Overcoming Underwashing

The chain of cleanliness risk factors is led by poor handwashing. It is the #1 cited element in outbreak investigations. The risk of the unwashed hand has largely gone unaddressed because of the lack of standards and meaningful measurement tools. New monitoring technologies are proving to be game changers. Verified clean hands, ServeReady® Hands, protect brands and are emerging as a customer-valued reason to return - a new corporate asset.



Handwashingforlife® Institute infographic from:
http://www.handwashingforlife.org

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Crothall Environmental Services

For more than seven years, Crothall EVS has partnered with this organization as part of an ongoing commitment to reduce the risk of HAIs and person-to-person illness. Resultantly, the science of hand hygiene, correct gloving technique, and the importance of high-touch surface cleanliness is continually taught to all housekeeping specialists.

Morrison Food and Nutrition Services (FNS)

Hand hygiene is critical in food service. At Mount Sinai Hospital, Morrison Healthcare Food Services challenged their catering associates to achieve a 92% hand hygiene compliance during entry and exit to the patient contact area. The Leadership recognized that consistent and reliable hand hygiene is the single most important way healthcare workers can protect patients, fellow staff members, and themselves from hospital-acquired infections. A multi-faceted approach, including the use of education and reward, with a re-design of department workflows, improved compliance from 62% to 89% during a 3-year period.

Hand hygiene is the simplest and one of the most effective methods to prevent pathogen transmission. It's clear these strategic partnerships assist Compass One with providing world class resources to promote patient safety and reduce the infection risk.

PILLAR ②

PROCESS

The hospital environment has wide-ranging surfaces, equipment, and intricate designs. Compass One's thorough, goal-driven, integrative cleaning and disinfection approach, with continuing employee education (Fig. 3), reduces HAIs and leads to positive patient outcomes, accomplished through multiple systems and processes.

1. People

The Human Factor

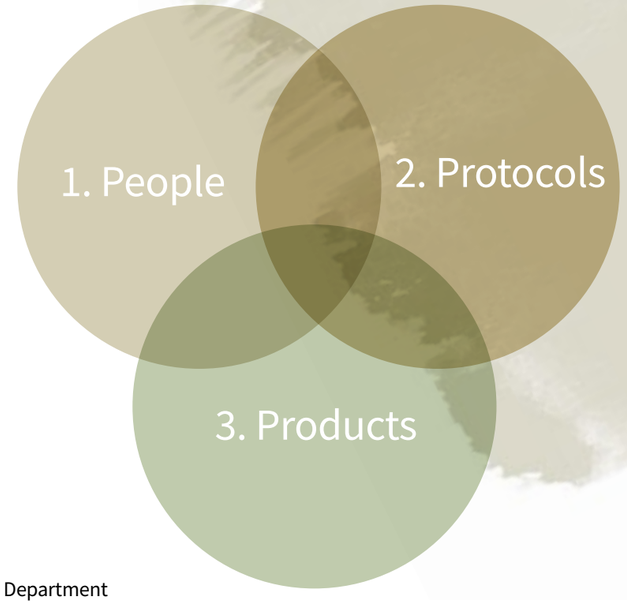
Every day, HCP perform thousands of interventions and actions that have the potential to transmit pathogens and even infection and/or cause contamination. To address the problem, there is a focus on technical solutions—re-engineering protocols, adopting new products and researching new technology. But what cannot be overlooked is the human factor: the front-line staff in environmental services, food service and all support services, whose daily activities help to protect the patient, families, clinical staff and everyone in the hospital.

Compass One believes a successful infection prevention program depends upon:

- Acknowledging Support Staff as an integral player in infection prevention
- Partnering with the Infection Prevention and Control Department
- Clinically involving the Support Staff
- Viewing Support Staff as full-fledged health care team members
- Breeding empowerment with team cooperation

Figure 3

Three Core Elements of Pillar #2 - PROCESS



Teamwork

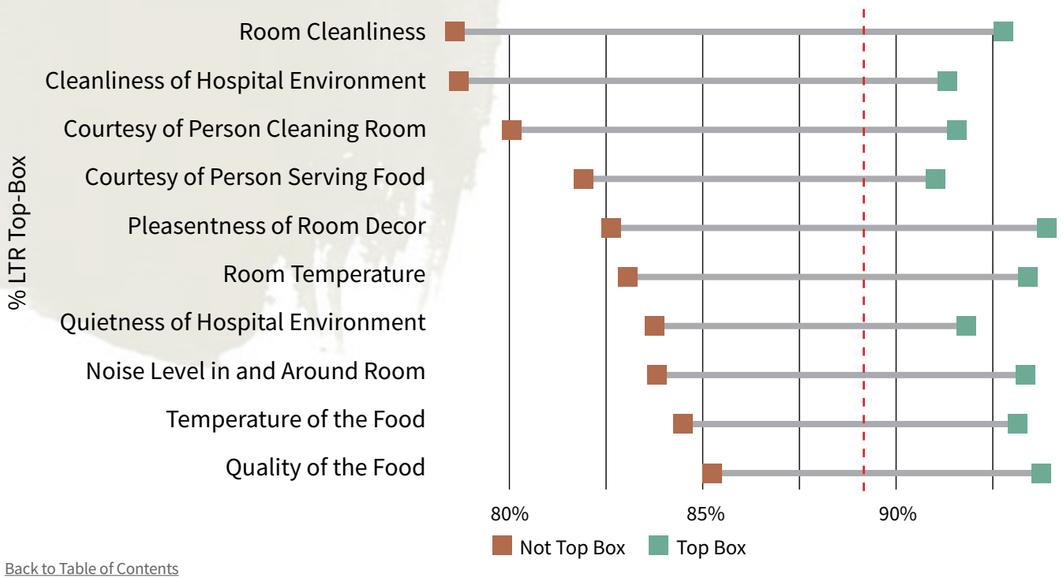
Press Ganey Data Indicates that Teamwork Impacts Hospital Reputation

In the inpatient setting the strongest predictor of patient loyalty is caregiver teamwork. Perceptions are influenced by every touch point beyond medical professionals to include nonclinical support staff. Teamwork is especially critical in health care settings. Compounded missteps in communication and processes among care team members can contribute to poor quality and safety outcomes and harm a hospital's reputation. This includes processes, standards, and behaviors of personnel in support service lines, such as environmental services (EVS) and food and nutrition services (FANS).

Press Ganey analyzed the influence of EVS and FANS-related measures on care coordination. The results confirm that improving on these measures will positively influence patient loyalty, whereas lagging performance will exert a negative influence.

Every interaction matters. The patient experience starts with the first interaction with an organization and continues through treatment and discharge, including interactions with nonclinical support staff. Patients are not always able to judge care delivery on elements that medical professionals use. In these cases, their perceptions of such things as room cleanliness and the quality of food services influence their opinions about hospital quality.

Patient-Level Difference in Percent of LTR Top-Box Between Respondents Who Rated Top-Box for Support and Those Who Did Not



Likelihood to Recommend (LTR) percentages exceed the median LTR percentages associated with excellent teamwork when performance on individual measures of EVS and FANS is high. When performance on these items is poor, the LTR percentages drop substantially. Of all the items, patients' perceptions of the cleanliness of their rooms and of the hospital overall have the potential to exert the most negative influence on LTR rates relative to teamwork.

The relative influence of some of these considerations on loyalty can be seen below. Specifically, nearly 93% of patients who gave top-box scores for teamwork and room cleanliness were likely to recommend the hospital, compared with only 78% of those who did not give high ratings for room cleanliness. When neither teamwork nor room cleanliness got top ratings, the Likelihood to Recommend percentage dropped to 39%.

Room cleanliness is not a substitute for teamwork but can enhance patients' perceptions of their experience and influence their loyalty. In contrast, among patients who did not give top-box ratings for teamwork, those who perceived room cleanliness to be excellent were more likely than those who did not to report their likelihood to recommend the hospital.

Percent of LTR Top-Box and Proportion for No. 1 Key Driver and Room Cleanliness

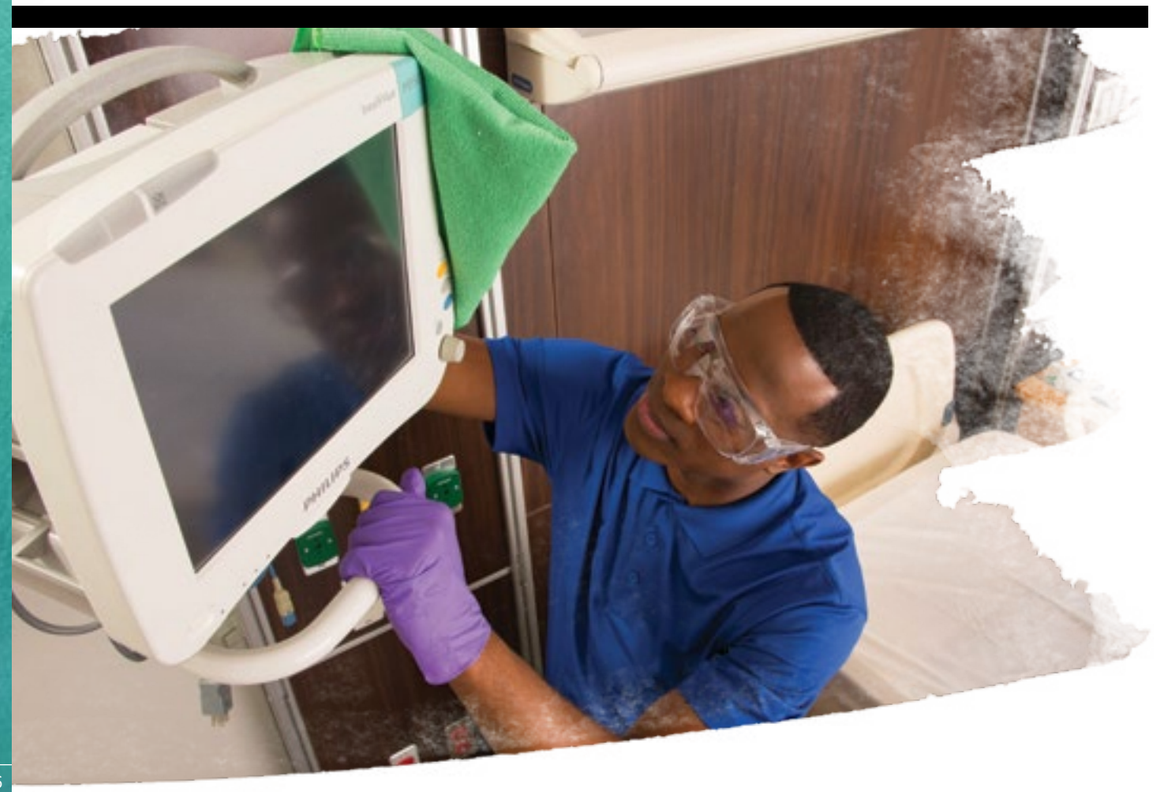
Staff Worked Together to Care for You		Room Cleanliness		Proportion
				0% 10% 20% 30% 40% 50%
Yes	89.0%	Yes	92.8%	
		No	78.4%	
No	42.2%	Yes	54.8%	
		No	38.2%	

Room cleanliness is not a substitute for teamwork but can enhance patients' perceptions of their experience and influence their loyalty.

The data also point to the influence that top performance on both EVS and FANS measures has on LTR. As indicated below, when both room cleanliness and food quality are rated highly, LTR percentages surpass 95%. When neither room cleanliness nor food quality receives a top rating, the LTR and hospital reputation drops to 76%.

Percent of LTR Top-Box and Proportion for No. 1 Key Driver and Room Cleanliness

Room Cleanliness	Food Quality	% LTR Top-Box	Proportion (0% 10% 20% 30% 40%)
Yes	Yes	95.3%	
Yes	No	90.0%	
No	Yes	84.3%	
No	No	76.6%	



Multivariate analyses identified significant associations. Looking at the link between CAUTI rates by unit type, structural attributes, workforce attributes, and patient experience performance with room cleanliness, nurse working relationships, patient volume and flow, catheter utilization ratio, and medical-surgical units demonstrate linkage as shown below.

Cross-Domain Key Drivers of Safety Outcomes PG Global Insight

Key Drivers		Clinical Outcome		
PX Survey	RN Survey			
Room Cleanliness	RN Working Relationships*	Avg. CAUTI/1000 Cath Days	% Unitswith Zero CAUTI	Medical/Surgical Units
■	■	0.15	86%	7
■	■	0.44	64%	25
■	■	1.06	48%	25
■	■	1.27	48%	69

■ Not Top-Box ■ Top-Box

Teamwork between Support Services and Clinical Staff is critical to Safety.

The care experience encompasses everyone who comes into contact with patients. Hospital leadership should foster a work environment in which nonclinical support staff understand, and feel, their value as caregivers.

However, the cultural divide between the Support Services and clinical staff is a resultant theme impeding hospital performance. Optimal performance barriers include:[48]

- Gaps in training, education and understanding of their role
- Separation from traditional hospital clinical team
- Potential for language or understanding barriers
- Feeling of disempowerment to challenge hospital staff

EVS

- Pressure from nursing and admitting staff to clean a room under the allotted time
- Clinical staff using clean rooms for staff breaks, lunch, etc. requiring re-cleaning

Compass One proactively responds to these human factor challenges and promotes a hygienically clean environment by:

- **Ongoing and direct employee training.** Coaching, engagement, feedback, partnership, accountability and empowerment of staff members ensures they are clear about their individual responsibility for promoting environmental hygiene, through correct cleaning/disinfection processes and proper personal protective equipment (PPE) use, which leads to improved and sustained outcomes
- **Educating the Support Services teams** in the proper use of hospital-grade chemical agents and disinfection technology
- **Designing comprehensive, specific and integrative protocols and strategies.** For example, Crothall's "High Profile Cleaning" systematic process focuses on cleaning and disinfecting of high-touch points in the patient zone and cultivates patient engagement
- **Auditing staff** to ensure strict adherence to standard protocols
- **Actively measuring Adenosine Triphosphate (ATP).** ATP is an objective indicator of whether a surface is clean or not, using the Hygiena performance improvement technology. Immediate employee feedback can be given to ensure service quality and thoroughness. Both short-term and long-term trending is performed, with findings shared with the infection prevention and control and hospital leadership teams.
- **Fluorescent marking systems** are also used to objectively evaluate cleaning practices
- **Checklists** to ensure all procedures are being followed
- **Competency testing** to assess worker performance
- **Partnering with the hospital's Infection Prevention and Control Team.** Analyzing ATP results, disinfection selection, outbreak termination, etc., serving on the Infection Prevention and Control Committee, and participating in regular multi-disciplinary environmental rounds performed with Environment of Care and Infection Prevention and Control colleagues

Crothall's "High Profile Cleaning" systematic process focuses on cleaning and disinfecting of high-touch points in the patient zone and cultivates patient engagement

Back to Table of Contents

- **Conducting periodic independent consultant assessment surveys** to ensure compliance with protocols and assist with regulatory preparedness
- **Ensuring compliance with evidence-based policies** and procedures based on:
  - The Centers for Disease Control and Prevention (CDC), World Health Organization (WHO), Canadian and British infection prevention guidelines and recommendations
  - Regulatory agencies (e.g., OSHA, FDA, Department of Public Health, CMS), accrediting agencies (e.g., The Joint Commission, Healthcare Facilities Accreditation Program [HFAP], National Integrated Accreditation for Healthcare Organizations [NIAHO])
  - Partnering with a board-certified infection preventionist to ensure best practices with reducing HAIs
  - Incorporating well-designed research from medical literature
  - Implementing industry studies and recommendations
  - Adopting best practices from other leading organizations (e.g., AORN, APIC, etc.)
  - Evaluating an organization's specific and unique needs when recommending proper cleaning procedures, food handling, products and new technologies
  - Adopting protocols based on Compass One's research and scientific experience. Fast expansion several years ago of life-saving protocols across all Compass One Clients is critical, such as the Ebola Virus Disease (EVD) patient handling at Bellevue Hospital in New York City.
  - Partnering with the Positive Impressions Team and Press Ganey to discover the best paths to create a caring and personalized healthcare experience.

Nursing engagement with all Support Services improves *The Experience*.

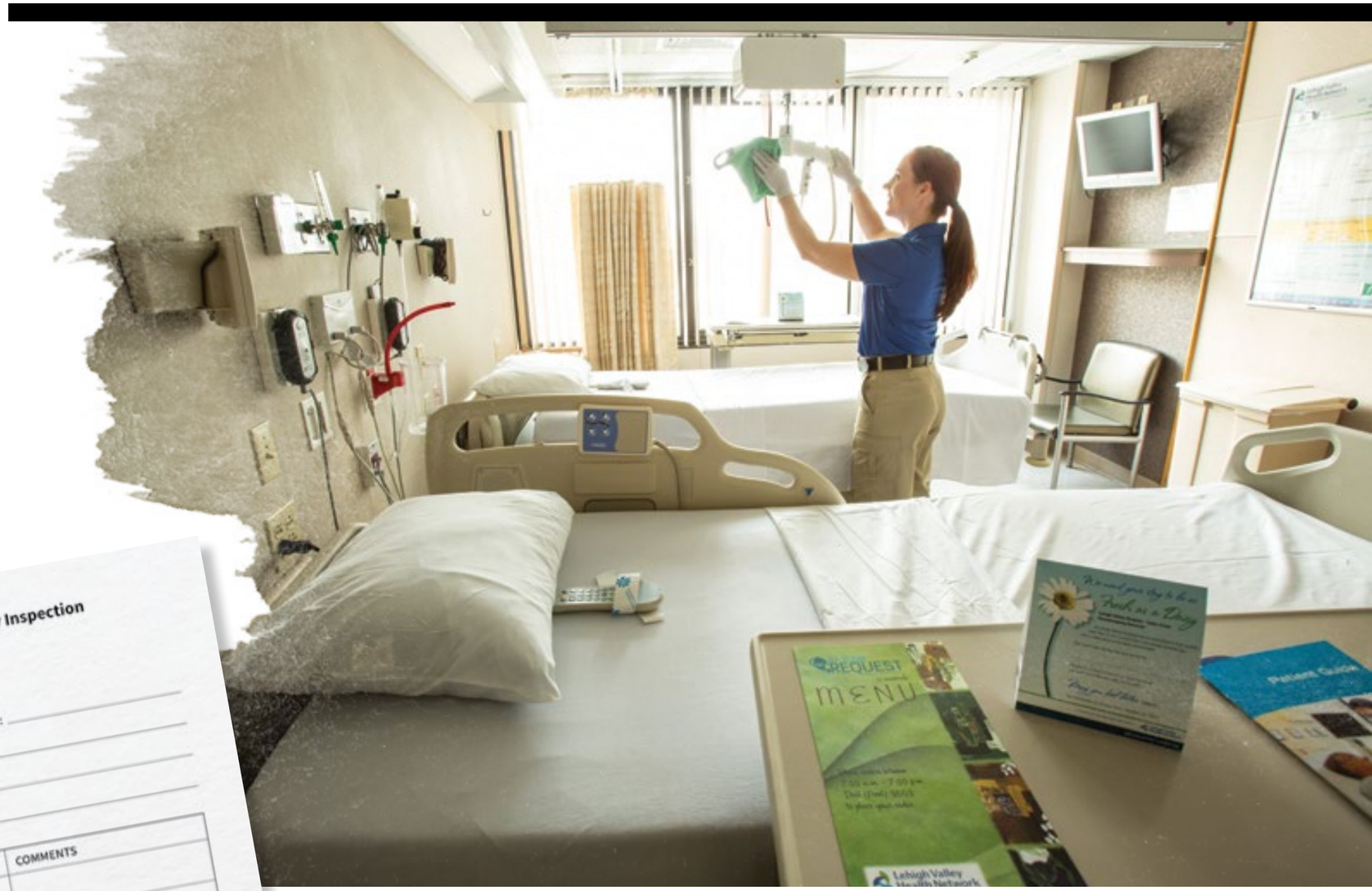
The patient experience audit confirms that a Nursing Engagement program is in place. The audit proves the program is active to improve Patient experiences through collaboration. Evidence of nursing engagement includes logs, pictures, e-mails, thank you cards and joint celebrations.

Crothall Environmental Services

Crothall EVS conducts environmental rounds with the nursing leadership to evaluate cleaning quality. A true gauge of an Environmental Services Department's relationship with nursing lies in the interaction with front-line nurses and nursing assistants. A constructive, collegial relationship is critical to create an environment where everyone embraces their personal role in reducing HAI incidence and promoting patient safety.

Environmental rounds to assess cleaning quality are performed in specialized departments such as the operating room, endoscopy unit, rehabilitation department, etc.

The operational "Picture Perfect Program" is a key component of Nursing collaboration. The program must be customized to the preferences of the nursing staff in each unit. Regular discussions with nursing leadership will identify their specific preferences following discharge cleaning. Any and all elements must be consistent with every HAI reduction protocol.



A true gauge of an Environmental Services Department's relationship with nursing lies in the interaction with front-line nurses and nursing assistants.

crothall healthcare
ENVIRONMENTAL SERVICES
EXPERIENCE THE POWER OF CLEAN

EVS Customer Survey Inspection

Facility: _____ Inspection Date: _____

Building: _____ Interviewee: _____

Floor: _____ Employee: _____

Room: _____ Supervisor: _____

Customer Survey	**COMMENTS**
1. Rate the cleanliness of your area. SAT UNSAT N/A	
2. Rate the responsiveness of our staff to your request. SAT UNSAT N/A	
3. Rate the availability of restroom and patient area supplies. SAT UNSAT N/A	
Quality Tour	**COMMENTS**
1. Patient Room 1 (please enter room number for each item in the comment field). SAT UNSAT N/A	
2. Patient Room 2 SAT UNSAT N/A	

Workplace Safety

A truly safe environment to heal, visit and work requires more than infection prevention. Disciplined attention to preventing slips, trip and falls protects Patients, Families, Clinical Staff and our own Associates. Crothall EVS associates...

- Display wet floor signs
- Clean up spills when paged
- Keeping entryways dry during winter/rain events
- Floor techs use signs/caution tape around project areas
- Slip resistant shoes are worn on floor projects
- EVS Associates mop as they leave the patient room
- EVS associates use the correct amount of liquid to avoid pooling in mopping

Hospital Administration can extend safety by also focusing on:

- Keeping parking lot and walkways in good condition
- Purchasing wall mounted pop up cones or spill kits for high traffic areas
- Repairing damaged flooring

Compass One uses Incident Frequency Rate (IFR) as our benchmark statistic. For Safety Year 2019 Crothall EVS finished with a 2.95 IFR vs. the housekeeping industry average of 3.10. IFR is a measure of the amount of injuries vs. the amount of labor hours worked - the lower the number the better.

Compass One has a prevention based safety program. Being ahead of the power curve is critical in workplace safety:

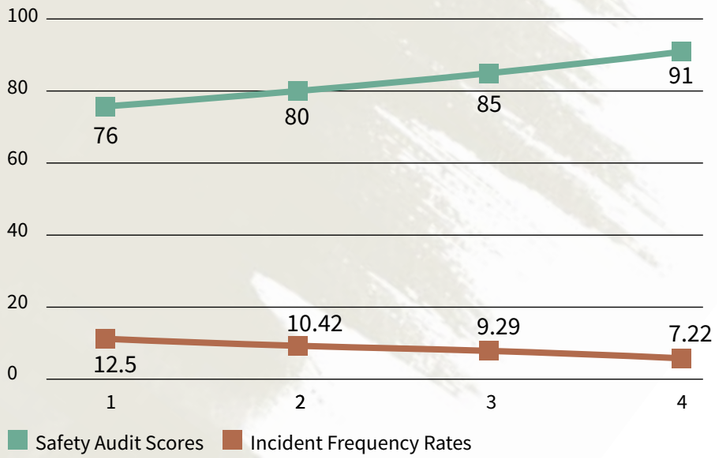
- **Management Commitment** The monthly Safety CHAT Topic is based on the highest risk injury causes which includes a monthly refresher training on this topic for all of the staff. There are “Weekly Minders” on the same topic which have daily talking points for managers to review during the daily huddles.

Being ahead of the power curve is critical in workplace safety

- **New Hire Safety Training:** Every new hire receives classroom and hands on safety training. Some of the topics included in our training:
  - Sprain & Strain prevention
  - Slip & Fall prevention
  - Struck-by Prevention
  - Chemical Safety
  - Blood Borne Pathogens
  - How to properly wear and remove Personal Protective Equipment
  - Using & storing chemicals safely
  - Use of wet floor signs
  - Best practices for mopping to prevent slips and falls
- **Safety Champion Process:** Every unit has a Safety Champion who helps manage the safety program and oversees the onsite safety culture with the Unit Director.
- **Quarterly Self-Assessment:** Every unit is required to complete a quarterly self-safety audit of their workplace. It covers both documentation and on the floor evaluation of our injury prevention programs. There is a direct correlation with Audit Scores and IFR improvement:

Correlation Between Safety Audits vs. Incident Rates

Memorial City Hospital, Houston, TX



Compass One focuses on areas like training, compliance, record keeping, and safety audits to identify problems, spot trends, and correct action items. A comprehensive Injury Reporting Packet is provided to assist management in capturing all relevant information pertaining to a work-related injury and enable Crothall's safety team to:

- Quickly identify the root cause of injury and create an action plan to prevent reoccurrence
- Identify possible workers' compensation fraud
- Better assist the leadership team with managing claims
- Improve productivity by providing modified duty

All sites are required to conduct quarterly Safety Performance Review (SPR) Audit. These reviews are completed by the Regional Director and the Unit Director as part of the Performance Evaluation. Like Quarterly Assessments noted above, there is a direct correlation with the SPR scores and frequency of injuries, or the Incident Frequency Rate (IFR). As units' SPR scores improve, their IFR scores tend to decrease.

Workforce Management

Crothall EVS HealthClean Software Platform increases productivity.

"Virtual MGR" HealthClean platform (https://virtualmgr.com/health-clean) has led to increased operational efficiencies, improved quality and compliance, increased transparency, improvements with patient safety, quality, and HCAHPS. The software application results with an increase of overall cleanliness and client satisfaction, leading to a "real time, clean time."

HealthClean increases labor productivity leading to decreased labor expenses, without sacrificing patient safety. Staff input their detailed assignment tasks leading to specific metrics and data, with potential improvement opportunities. A high priority task, such as a spill, can be instantly assigned, leading to a reduced fall risk for a patient, staff member, or visitor. Implementation at Medstar Harbor Hospital, University of Virginia, and University of Kentucky resulted with multiple employee efficiencies and developing key scientifically driven metrics, a first for the industry. (Read more - Appendix 8-9)

HealthClean increases labor productivity leading to decreased labor expenses, without sacrificing patient safety.

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Protocols

Doing The Right Things

Compass One's processes go beyond basic food handling and cleaning protocols. These protocols are designed to disinfect surfaces and interrupt microorganism transmission. The protocols consist of evidenced-based practices to protect patients, staffs and visitors from acquiring pathogens. To be healing environments, hospitals must not only look visibly clean, they must also be free of microbial contamination.

Crothall Environmental Services (EVS)

The CDC divides housekeeping surfaces into two distinct groups:

1. **Minimal Hand Contact Areas** that have minimal hand contact (e.g., floors and ceilings) require thorough cleaning but at a lower level of intensity.
2. **Frequent Patient Contact Areas** with frequent hand contact ("high-touch surfaces")[49] have the potential to become reservoirs for infection. High-touch surfaces can quickly become contaminated; pathogen transmission is related to the contamination of near-patient surfaces and equipment.[50]

Hospitals must not only look visibly clean; they must also be free of microbial contamination

The CDC notes the surfaces in the patient's room such as bedrails, bedside tables and call buttons may be a contributing factor in the transmission of disease from one patient to another.[50]

High-touch housekeeping surfaces include: [29,49,50]

- doorknobs
- bed rails
- light switches
- wall areas around the toilet in the patient's room
- edges of privacy curtains
- sink
- bedside table
- side/bed rail
- call box
- telephone
- bathroom handrails

The CDC recommends that high-touch housekeeping surfaces should be cleaned and/or disinfected more frequently than surfaces with minimal hand contact,)[49] and that programs be developed that optimize cleaning thoroughness.[29] Crothall processes are aligned with the CDC recommendations.

The "High Profile Patient Room Cleaning QA" metric is used by both the customer and the Crothall EVS Leadership Team to assess if those high-touch surfaces were cleaned/disinfected properly to meet Crothall's high standards. Crothall consistently maintains an extraordinary 95% satisfaction score with the "High Profile Patient Room Cleaning" process.

The Power of Clean addresses both the reality and the perception of clean. Patient safety and infection prevention and control is the reality of clean, while the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) and the results from third party research survey providers such as Press Ganey, NRC Picker, etc. reflect the patient's perception of clean.

Press Ganey Analysis of Patient Perceptions and HAI Incidence

Press Ganey research proves that Patient perceptions of clean can be accurate. Some argue that "clean is in the eye of the beholder" and you can't react to varying human perceptions of clean. That thinking is not consistent to the ever-increasing role of Patient perceptions as measured in HCAHPS results impacting CMS reimbursements.

Press Ganey research has found otherwise. Research from a strategic partnership between Press Ganey and Compass One Healthcare suggests that patients' perceptions of environmental factors are highly correlated with specific safety, quality and experience outcomes, and as such, they are an essential variable in the improvement equation.[14]

Press Ganey analysis shows clear correlations. The data shows correlations between patients' perceptions of room cleanliness, the risk of hospital-acquired infections, and scores on HCAHPS. The data indicates that patients are more likely to recommend a hospital they perceive to be clean suggests that cleanliness is an outcome that matters to them, and as such, is an important improvement target."[8]

Crothall processes are aligned with the CDC recommendations

Crothall consistently maintains an extraordinary 95% satisfaction score

Hospitals that scored high for cleanliness, had, on average, the lowest number of infections. Similarly, hospitals where patients reported lower cleanliness scores tended toward higher infection rates. MRSA infections were highest in the hospitals viewed as least clean and Intestinal Infections (C. difficile) are lowest when perceptions of cleanliness were the highest.

Hospital cleanliness scores are also correlated with staff responsiveness and nurse communication scores–see figure 7. Patients believe that the "staff working together to care for them" enhances their perception of their overall experience. When the patients believe that the nurses and doctors effectively listen to them, there is a greater chance that they would rate the cleanliness of the environment much more favorably.

Correlation of Cleanliness Domain with Other HCAHPS Domain Scores

Memorial City Hospital, Houston, TX

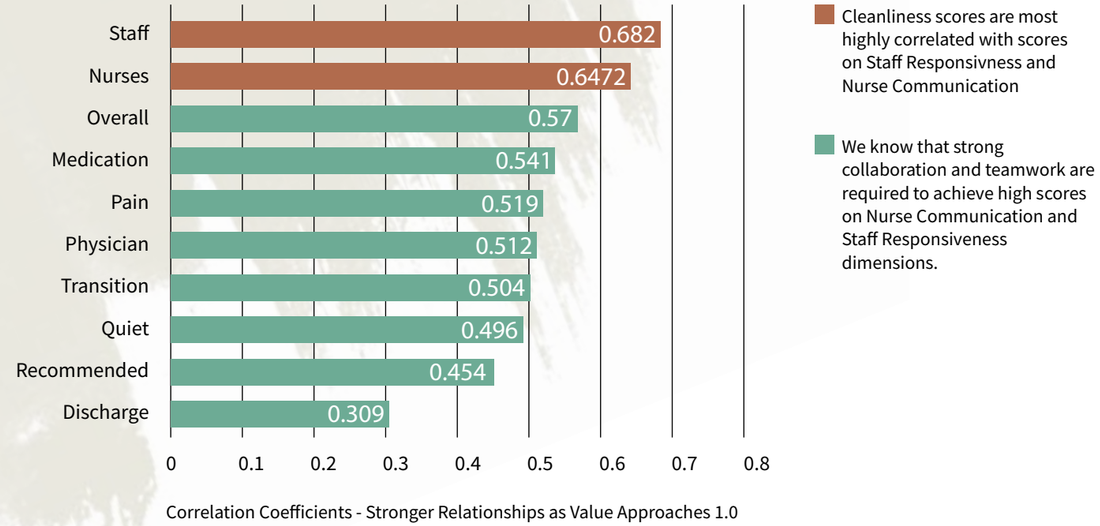

Figure 7

Correlation of Cleanliness Domain with Other HCAHPS Domain Scores

Press Ganey research indicates the importance of teamwork and offers recommendations. The report[14] offers several recommendations to assist hospitals with recognizing the importance EVS staff members have upon the patient experience and distinguishing themselves from the competition:

- **Recognize and value EVS workers as stakeholders** in the delivery of safe, effective, quality care
- **Consistently identify and employ evidence-based guidance** and practices in EVS to optimize the cleanliness and perceived cleanliness of hospital rooms and common areas
- **Reinforce accountability** for service excellence among the EVS staff
- **Foster a culture of teamwork, communication and collaboration** between the EVS staff and the rest of the caregiving team

Regulatory Adherence

The Joint Commission's spot inspection of non-clinical departments is demanding. Even a small violation by a member of our team can potentially lead to a citation for the hospital. Understanding and enforcing policies and standards is vital to our success.

We know the issues surveyors demand for review. Our training and operating procedures are designed to establish and update the critical record sets so that adherence is readily demonstrable and inspections are easily accommodated, facilitated, and satisfied. We train all department members on the array of local, state, and federal regulations and requirements. We also ensure complete compliance with the gamut of agency-mandated training topics, and document the completion of this training by each employee.

Compass One also works with Safety and Disaster Solutions, Inc. to evaluate our program elements and site performance (http://www.safetydisaster.net). SDSi is an independent consulting firm specializing in healthcare environmental hygiene, safety, and infection prevention and control. This provides a "fresh eyes" approach and gives Compass One the perspective needed to maintain and improve. Compass One is the first support services vendor to use an outside consultant to verify performance, and it demonstrates proactive willingness to find problems before a survey occurs and do what is necessary to fix them.

Safety & Disaster Solutions, Inc. (SDSi) is our primary accreditation partner. Compass One has many initiatives to bolster patient safety as well as our focus on continuous survey readiness for accreditation. Accreditation from deemed authorities such as The Joint Commission (TJC), Healthcare Facilities Accreditation Program (HFAP) and DNV Healthcare, as well as CMS compliance are paramount to our mission. Patient safety, infection prevention, associate safety and programmatic compliance are all critical outcomes built into our programs to maintain accreditation. Survey readiness audits as well as policy and plan review, complement ongoing internal assessments by Regional Directors of Operations and the National Standardization Director.

We train all department members on the array of local, state, and federal regulations and requirements.

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SDSi's staff includes experts in healthcare safety management, infection prevention as well as program management for the CMS defined Physical Environment (Environment of Care, Life Safety and Emergency Management.) SDSi's focus includes all support services accreditation needs across the spectrum of Compass One services (Food and Nutrition, Plant Operations, Environmental Services, Patient Transportation as well as Healthcare Technology Services).

SDSi also provides critical event support for emerging pathogens including consultation and PPE training for Novel Coronavirus (COVID-19) and Ebola as well as OSHA and EPA related matters. Through accreditation survey readiness and ongoing consultation, these topics support our overall efforts to improve patient safety and infection prevention for the patients and hospital staff that we serve.

Crothall Regulatory Adherence

The Crothall EVS track record is unblemished. After over 70 unannounced Joint Commission surveys at client hospitals, Crothall has not earned a single Requirement for Improvement (RFI) in any of the departments it manages.

CMS reporting data on *C. difficile* confirms the efficacy of the Crothall EVS process. Crothall monitors the quarterly CMS data on *C. difficile* events. 94.7% of locations served favorably met, or exceeded the national benchmarks for *C. difficile* infections and 97.2% of locations served met or exceeded benchmarks for MRSA.

Morrison Regulatory Adherence

Morrison provides each account iPads that have the Acuity Connect app loaded. The topics include Clinical Nutrition, Patient Experience, Patient Dining, Retail, Calorie Labeling, Culinary, Account Profile and Regulatory. Accounts are assigned to do each of them during a specific month, over the course of the year.

The Regulatory Review prepares accounts for their inspections. The Joint Commission and other Accreditation Organizations, as well as the state and local health department's inspections focus on these areas:

- **Food handling and storage** – food is properly stored in the refrigeration/freezer units, including labeling and dating of products.
- **Production** – foods cooked in advance are cooled within the expected time period.
- **Food temperatures are documented** when placed in service for patients and retail, and temperatures are documented again, at a maximum of every two hours.
- **Quality control logs are completed** in each area, as expected. Examples include storage temperatures, concentration of sanitizers, and dish machine temperatures.
- **Trays assembled for patients with food allergies** and texture modifications are double-checked and documented.

Under Compass One's watch, every department, every day, is run as "Survey-Ready." Compass One guarantees it.

Under Compass One's watch, every department, every day, is run as "Survey-Ready." Compass One guarantees it.

Food Safety Audits

Compass Group uses a third-party company to assess each location's compliance with the current version of the FDA Food Code. The Food Code is used by states as a reference when developing their own food safety regulations.

These annual Food Safety Audits are unannounced. While Morrison Healthcare has locations that range in size and some locations have multiple areas to report, the average time spent for each area is 2 hours. If a location does not score in the expected range, the third-party company continues to schedule unannounced audits every 30-45 days until the expected score is achieved.

The Quality Assurance Department of Morrison Healthcare oversees the development of the standards and the work of the third-party company. The areas evaluated are grouped into 11 sections. Focus area sections include:

- Preventing Contamination from Hands
- Temperature Control for Safety
- Food Identification
- Date Marking
- Shelf Life

The 3rd party Auditor also reviews records and explores qualitative information. The Audit Team observes and interviews Associates to confirm protocols and alignment with standards. The Auditor confirms temperatures of food in the cooler and the final rinse temperature of the dish machine.

Regardless of the score, the Unit Director is expected to complete an action plan to correct the issues identified. The "unannounced" approach for these visits ensures that our locations are inspection-ready every day.

While Morrison Healthcare has locations that range in size and some locations have multiple areas to report, the average time spent for each area is 2 hours.

Crothall Healthcare Technology Solutions (HTS)

Clinical Engineering Operations conduct Quality Assurance Assessments (QAA)

All HTS Regional Directors of Operations (RDO) visit locations on a routine basis. The RDO executes operational based QAA (audits) on a standard semi-annual cycle by the end of the second and fourth fiscal quarters each year. Each RDO is required to fully audit locations within their responsibility including such items as:

- Program Implementation (Including Safety)
- Financial Controls
- Staff Training and Development
- Professional Image (Customer Service, Quarterly Business Review, Customer Feedback)
- Regulatory
- Measurement (KPI) and Improvement

The HTS Unit Director (UD) is required to conduct a self-assessment QAA at the end of the first fiscal quarter. These routine visits and audits allow for consistent operational excellence monitoring as well as on-site management & hourly associate team effectiveness and efficiencies.

Additionally, QAA's are conducted by the HTS Compliance department. HTS accounts to be audited by "Compliance" will be selected by one or a combination of the following methods:

- Results of annual UD self-assessment
- Data obtained from Team Trace
- At random
- Upon specific request from the RDO, Regional VP, Division President and/or Crothall Senior Leadership.
- Previous performance improvement history

HTS 13485:2016 also conducts Quality Management System (QMS) Audits.

HTS 13485:2016 also conducts Quality Management System (QMS) Audits

HTS conducts internal QMS ISO Audits. The Internal Audit Program Administrator plans and schedules internal quality audits on an annual basis to determine, if the quality management systems conform to ISO 13485:2016, applicable regulatory requirements and the company's documented requirements detailed the Quality Manual (QM-2.2.2). Also, to determine if it is effectively implemented and maintained.

An ISO registrar NSF conducts external QMS Audits covering all clauses within the ISO 13485:2016 Standard:

- Post Certification Surveillance Audit: Annually 3.5 Days; 3 Days at various operations sites; ½ Day "corporate".
- Recertification Audit: Every three years 8 -10 Days. 1 Day "corporate"; Balance of audits conducted at various operations site-based.

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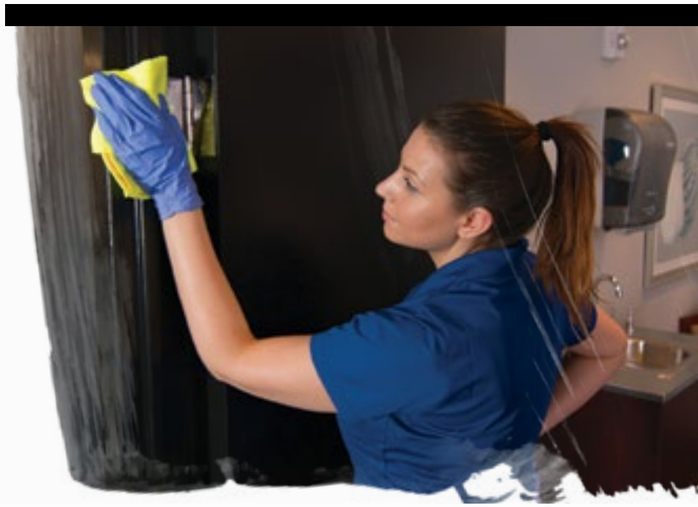
Products

Right Product for Every Situation

Highly trained Compass One staff must have the most efficacious products. Regular product testing and evaluation ensures that staff is applying the latest technologies to disinfect every risk point.

Compass One follows these core Product strategies to mitigate risk:

- **Develop strategic relationships with cutting edge Manufacturers.** Leverage their technologies and product development protocols to identify the best products to reduce HAI incidence.
- **Apply a severe due diligence discipline of testing all products.** Products identified for potential application in healthcare are submitted to Compass one's Technical Services for Beta testing, Pilot Testing and finally Field testing before national introduction.
- **Use only appropriate one-step EPA-registered hospital disinfectants** for routine, isolation precautions, and pandemic cleaning and disinfecting high-touch, environmental surfaces.
- **Cleaning/disinfecting *C. difficile* rooms with CDC-recommended** Environmental Protection Agency (EPA)-registered disinfectants with a *C. difficile* sporicidal label claim
- **Implementing premium microfiber products** and hydrogen peroxide liquid agents
- **Enhancing standard protocols with "no-touch" automated room disinfection** (NTD) highly efficient technologies, e.g., ultraviolet (UV) technology to eradicate microbes
- **Using High Efficiency Particulate Air (HEPA) filtration** in selected clinical situations
- **Implementing safeguards against Legionella** and other water-borne pathogens to ensure a safe water supply.
- **Eliminating microbes, odors, stains, mold, and mildew** through use of stabilized aqueous ozone (SAO).
- **Streamlining the workforce and operations** through an innovative software platform



Quaternary Binding

A multi-faceted approach is needed on quaternary binding ("quat binding"). Specialized protocols and quaternary test strips are used to check product potency and ensure the appropriate amount of disinfectant is delivered at the "patient zone". Compass One has been closely following the research surrounding quat binding upon microfiber and cotton cloths and the potential for decreased potency at the bedside.

Crothall only allows a certain number of microfiber and/or cotton cloths to set in the quaternary disinfectant container to reduce risk. This remedy, coupled with a routine quat potency test using approved quat disinfectant test strips, in addition to a prescribed quaternary disinfectant chemical change during the working shift has positively impacted infection rates.

Strategic Partners

Diversey is a strategic partner to Compass One in developing cutting edge products. Diversey (https://www.diversey.com) is a pioneer in the hygiene business and provides expertise and products to reduce HAIs and improve patient outcomes with a diverse, comprehensive product line including:

- **Oxivir disinfectant cleaners,** which are one-step hospital disinfectant cleaners, powered by accelerated hydrogen peroxide technology. The synergistic combination of cleaning and disinfectant properties results in effective and fast cleaning, and disinfection performance that is gentle to surfaces. The product has the best safety rating in all six EPA toxicity categories and does not require personal protective equipment (PPE) use.
- **Avert,** a sporicidal disinfectant cleaner is effective against *C. difficile* spores and many other bacteria, viruses, and fungi.
- **Additional quaternary-based broad-spectrum one-step agents** that are also fungicidal and tuberculocidal, are applied as clinically indicated.

Diversey products combined with Compass One's expertise is clearly driving positive outcomes: (Read more - Appendix 10-13)

- **The Hospital Sisters Health System (HSHS),** a multi-institutional health care system that cares for patients in 14 communities in Illinois and Wisconsin, the Infection Prevention Team were looking for a safer disinfectant with a rapid dwell time that also had efficacy against emerging pathogens. The current agent raised concerns with quat binding and its long-term use led to floor stickiness. The conversion to Oxivir®TB led to a faster and more effective cleaning/disinfection process.
- **The Duke Health System** wanted to reduce HAIs, with a target on *C. difficile* and CRE organisms. The implementation of Oxivir Tb wipes, and the daily use of Avert™ with daily and discharge cleaning, and the operating room, has led to a reduction in HAI rates and supports the goal of "zero harm" to patients, staff, and visitors.

Diversey is a strategic partner to Compass One in developing cutting edge products.

- **At Ohio State's University Hospital,** the implementation of the MoonBeam 3 UV-C disinfection system has led to greater staff satisfaction while HAI rates are being evaluated.
- **The Ascension Hospitals in Michigan** partnered with TouchPoint and Diversey to convert to a safe product with a short dwell time that was effective with eradicating pathogens. The implementation of Virex®Plus and Oxivir®1 led to a faster dwell time and improved cleaning.

Clorox Healthcare (https://www.cloroxpro.com/) is another strategic Partner to Compass One Healthcare. Building on a century-long legacy in cleaning and disinfecting, Clorox Healthcare offers a wide range of products to help stop the spread of infection in healthcare facilities.

Clorox Healthcare's products are fast-acting, EPA-registered, cleaner disinfectants intended for use upon environmental surfaces and medical equipment to help reduce the spread of pathogens such as *C. difficile* that can cause HAIs. The Clorox Healthcare ready-to-use (RTU) method has demonstrated improved environment cleaning and disinfection, faster cleaning and disinfection process, and potential time-related cost savings. There are multiple hospitals using Clorox products to maintain *C. difficile* rates below the national benchmark. (Read more - Appendix 14)

There are multiple hospitals using Clorox products to maintain *C. difficile* rates below the national benchmark.

Triple S Healthcare Solutions (https://triple-s.com/pis/480/Perisept%20Technical%20Guide.pdf), manufacturers of Perisept is also a Compass One strategic partner. Perisept is a sporicidal, broad spectrum disinfectant cleaner, with a 2 minute kill claim against *C. difficile*, norovirus, rotavirus, and adenovirus, has been shown to markedly reduce *C. difficile* cases at multiple hospitals, resulting in a patient harm reduction: (Read more - Appendix 15-16)

- **At the Novant Health System in North Carolina and Virginia,** Perisept was implemented, with *C. difficile* cases being reduced by 68% over a 2-year period. This prevented patient harm and also helped to reduce expenses.
- **Perisept use at the Medical University of South Carolina** reduced the annual *C. difficile* rate by 40% during 10 months of use. Implementation occurred in all areas of the hospital.

Microfiber does a superior job reducing bioburden, e.g., *C. difficile* spores, MRSA, dirt, debris, etc., then standard cotton cloths. By removing the bioburden and using the EPA-hospital grade disinfectant, the patient's risk of exposure to life threatening pathogens is reduced.

Compass One's evidenced-based microfiber program uses Medline's top-quality microfiber in hospitals - not all microfiber is the same. Medline's "Clean By Sequence Microfiber Booklets" are part of an intuitive process that creates ease for training, increases compliance, reduces cross contamination and room turnover time while improving HCAHPS scores. After use, CDC-recommended laundry practices are applied that will extend the life of the microfiber by a factor of two. (Read more - Appendix 17-19)

Tersano (https://www.tersano.com) develops and manufactures devices that produce Stabilized Aqueous Ozone (SAO™), an approved cleaner, sanitizer, and deodorizer. The Tersano process is a multi-functional solution that streamlines and reduces the need for additional cleaning products. At AdventHealth Orlando, SAO™ was initially trialed to demonstrate a level of cleaning on part with, or better than, the hospital's current chemical solution. Additional outcomes included simplifying the cleaning process, increasing savings, and decreasing the cleaning program's impact upon patients and employees. The results were highly favorable, leading to 90% of cleaning being performed with SAO™; without sacrificing quality. (Read more - Appendix 20-26)

The Trinity Guardion (www.trinityguardion.com) Soteria® Bed Barrier is a reusable/ launderable barrier cover to protect the patient's mattress from discharges and soiling. Mattresses are a cross transmission risk due to disinfectants damaging the surfaces and bed decks, potentially leading to a patient lying on a failed mattress due to a crack or tear. A recent study with the use of the bed barrier and an antibiotic stewardship program found a statistically and clinically significant reduction with healthcare onset *C. difficile*. (Read more - Appendix 27-29)

Triple S Healthcare Solutions, Medline and Tersano are strategic Partners to Compass One

Crothall Facilities Management (FM)

It's now a Centers for Medicare & Medicaid Services (CMS) regulatory requirement 52 for healthcare facilities to develop and adhere to a ASHRAE-compliant water management plan to reduce the risk of Legionella and other pathogens such as *Pseudomonas, Acinetobacter*, nontuberculous mycobacteria, and fungi in their typically complex, water systems. A robust plan when fully operationalized will prevent waterborne pathogens from harming hospitalized patients.

Garratt-Callahan (https://garrattcallahan.com/about), a seasoned water treatment company with over 100 years of experience, provides a multi-barrier approach including an individual risk management plan, implementing a water-testing regimen, using secondary disinfection, and deploying in-line point of delivery nano-filtration. This strategy significantly reduces the patient risk of becoming ill from a waterborne microorganism from the sink/shower drains and toilets.

An example of reducing the potential for harm occurred at an acute care hospital in Paducah Kentucky. Water from faucets and showers throughout its 33-acre campus were testing positive for Legionella bacteria. It was determined the current chlorine treatment provided by the municipality was insufficient for eliminating positive Legionella readings. The G-C Water Safety Group was able to install two Chlorine Dioxide Generators which quickly produced positive trends and ensuring a safer water supply. (Read more - Appendix 30-31)

PILLAR ③

SURFACE MEASUREMENT

Measuring Success

Each Compass One Healthcare Sector has a measurement process designed to support quantitative quality outcomes, performance trends as well as internal, regulatory & deeming authority compliance factors. These standard measurement processes include, but are not limited to:

- Team Ops & Facilities Management Competencies & Inspections
- Team Throughput & Patient Transportation Competencies Inspections
  - National Performance Center Operational & Throughput efficiencies
- Team Coach & Environmental Service Operational Excellence, Competencies & Inspections, Validated by:
  - Cleaning Industry Management Standard (GB)
- Acuity Connect aligned with Food & Nutrition Focus including but not limited to:
  - Food Handling
  - Temperature
  - Production
  - Tray Assembly
  - Quality
- HTS Operational Excellence, Competencies & Inspections Validated by:
  - ISO 13485
  - NSF
- Laundry Services Operational Excellence, Competencies & Inspections Validated by:
  - HLAC

Semi-annual Regional Director of Operations audits are executed All such audits are done in accordance to Compass One requirements mid-year as well as year-end and are supported by operational self-audits, safety assessments, patient experience reviews as well as secret shopper audits.

The ISSA Cleaning Industry Management Standard is third party validation. The rigorous CIMS Certification process and certification was first achieved in 2009, by the Environmental Services sector including compliance with:

- Quality Systems
- Safety & Environmental Stewardship
- Service Delivery
- Leadership
- Human Resources
- Green Building

Crothall Healthcare was the first Healthcare EVS to earn the CIMS Certification and has sustained these credentials in each cycle thereafter.

All such audits are done in accordance to Compass One requirements mid-year as well as year-end...

ATP (adenosine triphosphate) Cleaning Verification

The CDC states the transmission of pathogens is related to contamination of near-patient surfaces and equipment. While the actual standard of contamination still needs to be defined,[21] Compass one has always believed a clean hospital is critical to prevent HAIs, and having a clean, safe "patient zone" is critical for patient wellness. Measuring cleanliness by appearance alone is simply not the optimal metric; environmental microbial contamination can still occur, be invisible to the naked eye, and pose a potential infection risk to a patient. Resultantly, objective measurement of surface cleanliness using ATP (adenosine triphosphate) cleaning verification provides instant feedback on cleaning/disinfection effectiveness.

Hygiena's ATP verification system (https://www.hygiena.com/food-and-beverage-products/food-and-beverage-processing.html) is one of the leading methods recommended by the CDC for monitoring and improving environmental cleanliness in hospitals. The scientific detection of adenosine triphosphate (ATP), the universal unit of energy in all living cells, immediately determines if surfaces are truly clean and safe.

The Hygiena ATP verification system gives actionable results in only 15 seconds. Thus, Compass One's implementation of Hygiena provides hospitals with an affordable, objective, easy-to-use method for verification of surface cleanliness. This user-friendly monitoring system will not only improve hospital cleanliness and reduce infection risk, but also will ensure the cleaning budget is used more efficiently. Recently, multiple Crothall hospitals in Maryland participated in a pro-active, state-wide collaborate to improve environmental surface cleaning, resulting with an overall decreased *C. difficile* infection rate.

Hygiena ATP technology is aligned with Crothall TeamCOACH software. Users can know immediately if surfaces have been cleaned/disinfected properly. ATP results during quality assurance inspections are entered into TeamCOACH. Problem areas can be quickly remediated. This verification ensures the room is safe for the current, or next patient, to occupy. Cleaning thoroughness results can be benchmarked and trended over time. Reports can be generated for hospital committees, record keeping, and employee evaluations.

Visual inspection is being replaced by quantifiable, objective methods upon the recommendation of the CDC. Hygiena notes there are many different ways to evaluate cleanliness of the healthcare environment, and each comes with pros and cons. Managers need reliable data collection and objective measurement techniques to truly know if a surface is clean.

Other technologies do not meet Crothall standards. Blacklight detection of fluorescent gels is an excellent training tool but fails to measure the actual removal of biological matter. Microbiology testing gives the most quantitative, specific results for pathogens or bacteria on a surface, but results are slow and tests are expensive. EVS and Infection Prevention and Control need quick results to turn beds over faster, have verification the room is clean, and collect quantifiable data for meaningful analysis.

The CDC states the transmission of pathogens is related to contamination of near-patient surfaces and equipment.

Crothall Environmental Services (EVS)

Multiple Hygiena studies demonstrate strong linkage to reduced infection rates. Research presented at national conferences or published in the peer review literature in recent years have shown that the implementation of a monitoring program immediately improves compliance to cleaning procedures, resulting in a cleaner hospital, correlating with decreased healthcare-associated infection rates, and improved patient experiences as reported in HCAHPS scores.

Hospitals that use Hygiena have very positive outcomes: (Read more - Appendix 32-35)

MedStar Georgetown University Hospital

MedStar Georgetown University Hospital in Washington, D.C., initiated ATP testing after their 2017 MRSA bacteremia observed cases (13) and *C. difficile* observed cases (94), while no different than the national benchmark, could be further reduced with ATP cleanliness verification testing. The initiation of ATP testing during 2018 and into 2019 led to a 98% passing rate. Even more fulfilling was the decrease with MRSA bacteremia observed cases (4) and *C. difficile* observed cases (58), findings that are better than the national benchmark. Furthermore, this 4-star hospital outranked their competitors in the "patients who reported that their room and bathroom were always clean" and "patient who reported yes, they would definitely recommend the hospital," HCAHPS categories.

Saint Thomas Rutherford Hospital

Saint Thomas Rutherford Hospital in Murfreesboro, Tennessee experienced 67 cases of *C. difficile* during 2015, correlating with a 93% ATP passing rate. Correspondingly, an increase with ATP testing reading passing percentages resulted in better cleaning. The number of *C. difficile* cases dropped dramatically to 57 during 2016, 35 during 2015, and 17 during 2018.

Even more fulfilling was the decrease with MRSA bacteremia observed cases (4) and *C. difficile* observed cases (58)

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Peninsula Regional Medical Center

Peninsula Regional Medical Center in Salisbury, Maryland had 28 *C. difficile* cases during 2017. Therefore, the EVS team increased their environmental hygiene and patient safety efforts, with an increase in ATP testing reading passing percentages as a result. During 2018, there were 24 *C. difficile* cases. Furthermore, this 3-star hospital outranked their Maryland competitors in the "patients who reported that their room and bathroom were always clean" and "patient who reported yes, they would definitely recommend the hospital," HCAHPS categories.

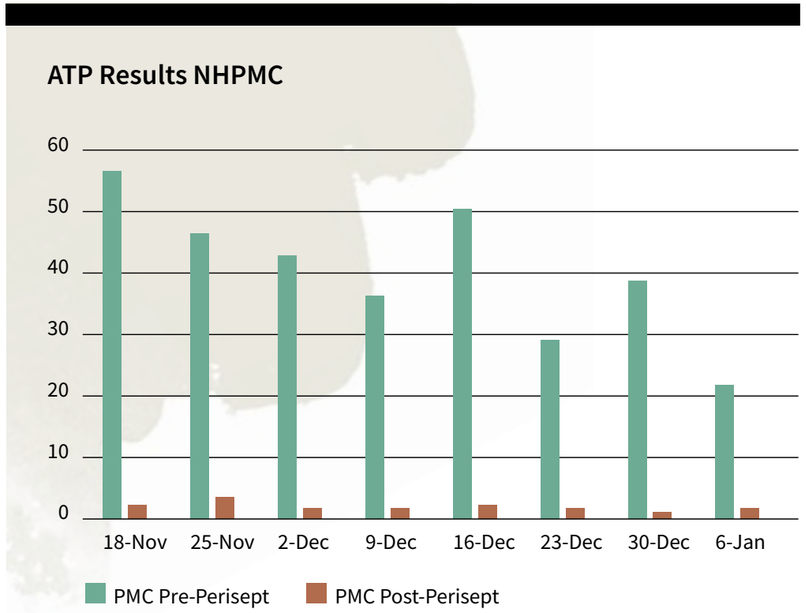
St. Vincent's Medical Center

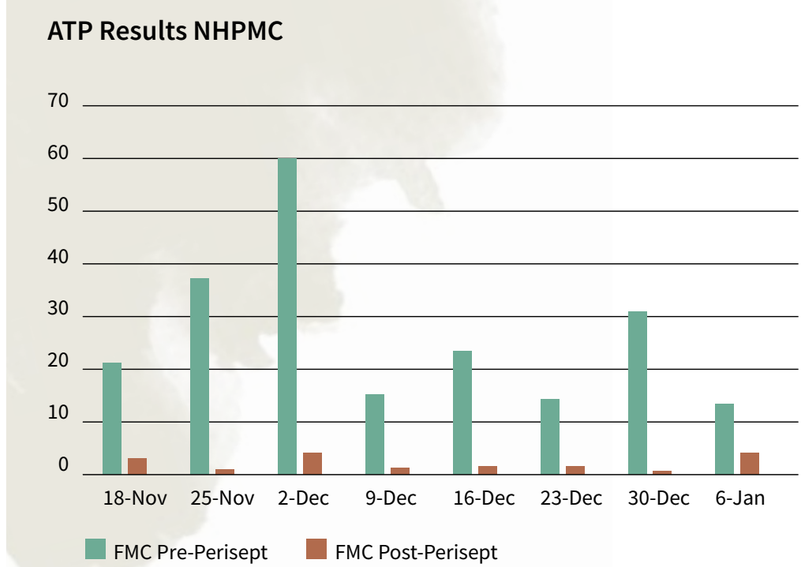
St. Vincent's Medical Center in Bridgeport, Connecticut significantly increased their ATP testing during 2018, despite a decreasing trend with the number of *C. difficile* cases in 2015 (91), 2016 (71), 2017 (58) and 2018 (41) and MRSA bacteremia. The increased testing coupled with the increased passing scores led to better cleaning and disinfection.

Crothall Patient Transportation Services (PT)

Wheelchairs transporting patients must be free from pathogens to reduce infections. Novant Health Presbyterian Medical Center (NHPMC) and Novant Health Forsyth Medical Center (NHFMC) in North Carolina wanted to ensure The Patient Transportation Department provided wheelchairs to the patients that are clean and free of microbial contamination.

Each week, 5 wheelchairs were randomly selected in the hospital lobby for cleanliness testing. First, each wheelchair was ATP tested to determine baseline contamination. Next, each wheelchair was cleaned/ disinfected per policy with "Perisept", a sporicidal disinfectant cleaner. Third, the wheelchairs were again ATP tested. Overall, while all the wheelchairs were not heavily contaminated initially, the use of Perisept coupled with ATP testing resulted with nearly zero contamination results; see tables.





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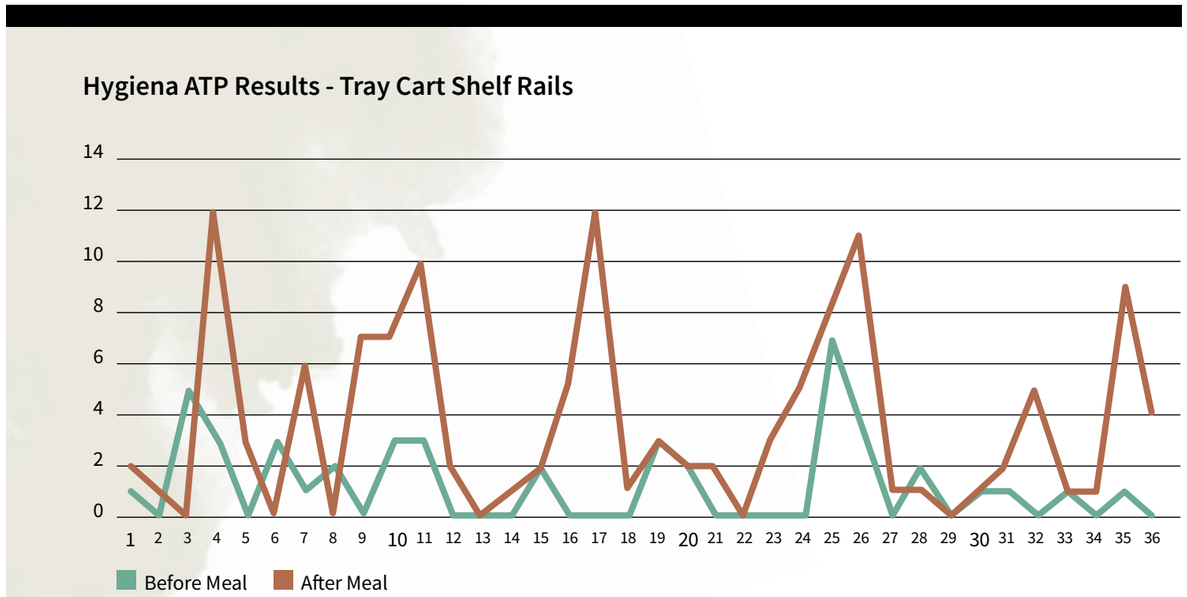
Morrison Food and Nutrition Services (FNS)

The FNS team at Johnston Memorial Hospital in Abington, Virginia wanted to ensure their top-notch, clean-tray cart sanitation process was valid; anything less would pose a potential harm to a patient. As part of their routine practice, to reduce *any* contamination risk, dirty-carts are taken apart and the shelves are run through the dish machine. The carts are also cleaned and sanitized between meals.

A robust protocol was developed to perform randomized ATP testing, at numerous times during the day and week, for six consecutive weeks. The carts were first clean and sanitized, and allowed to dry. Testing including the tray rail, located at different levels within the cart. ATP scores ranged from zero to seven, from 36 test sites.

Additionally, the team wanted to get a sense with how much contamination occurs, within the cart, when a patient's food tray is returned from the patient's room and placed into the dirty-cart, and the cart is transported back to the kitchen. Again, randomized ATP testing, at numerous times during the day and week, for six consecutive weeks, was performed when the dirty-cart was returned to the kitchen upon empty tray rails where a tray had been placed. ATP scores ranged from zero to twelve from 36 test sites, again indicating minimal contamination was occurring during the entire process.

Upon evaluating the very positive findings, the team agreed the ATP monitoring contributed to validating the sanitation process, and ensuring clean food trays do not become contaminated when placed into a clean-tray cart.



Press Ganey Measurement of Core Drivers in FNS

Press Ganey data identified the core elements in patient satisfaction with food service. In recent focus groups conducted by Press Ganey Consulting in collaboration with Louisiana-based Ochsner Health System on behalf of Compass One Healthcare, 45 recently discharged hospital patients and their family members perceived the process of meal service—ordering, receiving and enjoying their food—as a positive aspect of their inpatient stay.

Press Ganey researchers combined the qualitative data with quantitative analyses from Press Ganey's patient experience data related to food service. Press Ganey's patient experience survey asks patients to rate three relevant items in this regard:

- The quality of the food
- The temperature of the food (hot food hot, cold food cold)
- The courtesy of the person serving the food

Patients and family members separate their experience with food into two categories based on analyses of survey responses to these items in the Press Ganey database:

- Characteristics of the food itself (seasoning, preparation, temperature, etc.)
- Issues related to the ordering and delivery of meals (menu selection, ease of ordering, timeliness of delivery and order accuracy).

Focus group participants had stronger opinions about the ordering, availability and delivery of their meals than the characteristics of the food itself. In fact, a majority of participants admitted that they did not expect the food to taste great, acknowledging that they were in a hospital, not a fine dining restaurant. Several participants note that they were pleasantly surprised by the food quality, while some others found it predictably bland or lacking in flavor.

> ...participants had stronger opinions about the ordering, availability and delivery of their meals than the characteristics of the food itself

Press Ganey researchers conducted a separate analysis of survey responses to questions related to the accuracy and timeliness of the food order. Data for this analysis consisted of 9,734 respondents.

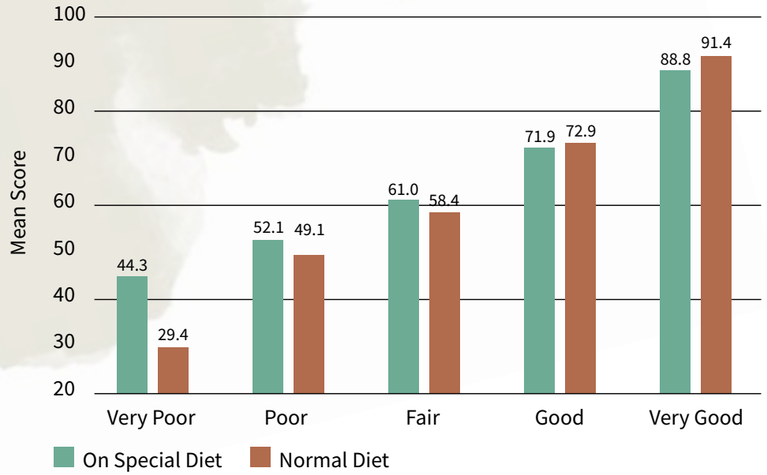
The researchers explored linkage to quality ratings by accuracy, timeliness and courtesy. As indicated in the table below, the evaluation of overall food quality is strongly related to accuracy, timeliness and courtesy. In the case of meal order accuracy, those who were pleased with the level of accuracy and gave top-box ratings to the accuracy question were more likely to also rate quality of food as top box (64% of the time). In contrast, when the accuracy of the meal order was not top box, food quality rarely (10%) received top-box ratings.

Independent Variable (IV)	If IV is Top Box, this is the likelihood that "quality of food" will be rated top box	If IV is NOT Top Box, this is the likelihood that "quality of food" will be rated top box
ACCURACY: Accuracy of your meal order	64%	10%
ACCURACY: Getting food checked off menu	59%	7%
TIMELINESS: Food delivered reasonable time	54%	10%
TIMELINESS: Delivery meals when scheduled	61%	8%
COURTESY: Courtesy of person served food	55%	6%

The chart below on special diets illustrates the association between staff communication and patients' perception of food quality. In cases where patients rated the explanation of the diet as "very poor," there was a 15-point gap in mean "quality of food" score between those on a regular diet and those on a special diet. This gap narrowed substantially among patients who rated the dietary explanation as "good" or "very good."

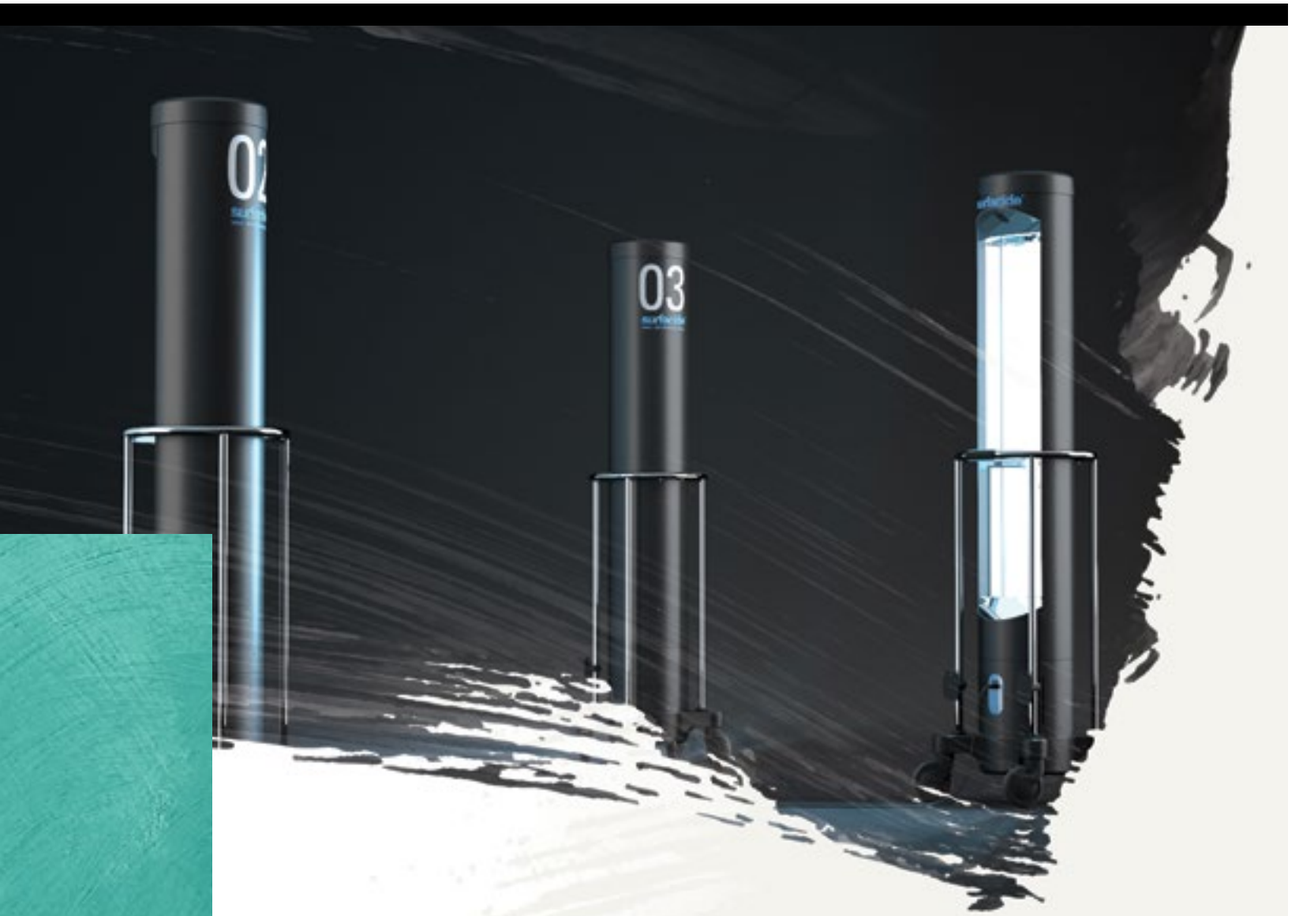
Inpatients on Special or Restricted Diets
PG Meal Section Experiences

Quality of Food Mean Score for 2015-Q3 2016 by Special or Restricted Diet Status and Rating of Special/ Restricted Diet Explained



1. Based on PG Inpatient Database, 2015-2016 (N=33,806)
2. Respondents answering question "Were you placed on a special or restricted diet during most of your stay?"
3. Respondents rating question "Special/restricted diet explained" , Very Poor to Very Good.

Food service can influence a patient's perception of the overall experience. As one of the only aspects of a patient's stay where he/she has choice and some level of control, paying attention to improving the overall food ordering and delivery process can be an important complement to other patient experience improvement strategies.



PILLAR 4

AUGMENTATION

UVC

In high risk situations cleaning/disinfecting disciplines need assistance. The CDC recognizes ultraviolet (UV) radiation kills bacterial spores, e.g., *C. difficile*, and its application will destruct airborne organisms or inactive microorganisms on surfaces.[53]

Compass One has a strategic partnership with Surfacide (http://www.surfacide.com). Surfacide is an evidenced-based, automated UV-C hard surface disinfection system with multiple emitters, allowing disinfection of all areas of the healthcare environment in a single cycle, including the bathroom. This results in the destruction of *C. difficile* spores, MRSA, and other multidrug-resistant organisms.

Single emitter systems cannot reach all high touch surfaces in a single disinfection cycle. Relying upon reflected energy to measure, analyze, and determine the proper dose of UV energy is flawed. With Surfacide's three emitters operating simultaneously during the same disinfection cycle, no exposed surface is left untouched and eliminates "shadows." This results in a more efficient delivery of energy, a faster room turnaround time (TAT), and optimal room disinfection. (Read more - Appendix 36-40)

Surfacide implementation has driven positive outcomes at multiple sites:

- **MedStar Health** developed the "Culture of Cleanliness" initiative, coupled with reducing *C. difficile* hospital-onset infection rates, and implemented Surfacide UVC technology in all ten hospitals. Resultantly, *C. difficile* rates dropped across the system, with a 59% reduction in slightly more than 3 years.
- **Faxton St. Lukes Mohawk Valley Health System** experienced a significant burden of both community-onset and hospital-onset *C. difficile* infections. The "C. Differently" campaign was created, with multidisciplinary input, to intensely reduce infection and supplement existing prevention programs. As part of the bundled approach, Surfacide UVC technology was implemented in the *C. difficile* rooms at discharge, resulting in a 18% decreased number of hospital *C. difficile* infection cases.
- **Enloe Medical Center** implemented the Surfacide technology to clean rooms at discharge and were able to reduce hospital-acquired *C. difficile* infection by as much as 52%.

Surfacide offers the option to safely position an emitter in the patient's bathroom daily to kill pathogens. First, the patient is informed how the organization is striving to make the restroom as safe as possible with the UV light to supplement cleanliness efforts. This favorable implementation led to increasing HCAHPS scores at The Ohio State University that ranged from 9.1% to 32.3%, the University of Maryland St. Joseph Hospital (6.7%), and Olathe Health (9.7%).

The CDC recognizes ultraviolet (UV) radiation kills bacterial spores

Electrostatic Application

PreVasive's Noroxycdiff (https://www.prevasive.com/wp-content/uploads/2016/10/Pr_Material-NOROxyCdiff.pdf), is a one-step broad spectrum disinfectant cleaner, that is applied electrostatically, resulting in the ability to reach all surfaces typically encountered in the healthcare environment. The application process is effective against *C. difficile* spores in 2 minutes, and other bacteria, including the MDROs, viruses, and fungi. No rinsing or wiping is required and the room is quickly available for re-occupancy. (Read more - Appendix 41-42)

- **At a 13-hospital system in North Carolina,** a Noroxycdiff 360 Electrostatic Spray application protocol system was implemented as an adjunct to existing terminal discharge cleaning and disinfection protocols. While still early with data collection, the system wide C. difficile cases decreased by 60% during a one-year period.
- **A Michigan hospital** wanted to determine if the implementation of Noroxycdiff 360 Electrostatic Spray application augmented traditional cleaning and disinfection protocols. A vigorous protocol was developed, including environmental culturing. Results indicated a statistically significant reduction in environmental contamination, when traditional cleaning and disinfection protocols and the Noroxycdiff 360 Electrostatic Spray application are combined.

Air Purification System

Scientific Air Management's (https://scientificairmanagement.com) certified air purification and disinfection system removes bacteria, virus, mold, particulates, and odor from the air, through the use of continuous UV, HEPA filtration, and a carbon odor management system. The S400 system is exclusively represented by Medline.
A major hospital in Florida was experiencing challenges with meeting USP 797 and CAG-009 compliance in two specific rooms. Implementing the S400 Air Disinfection unit led to meeting compliance with both guidance documents. (Read more - Appendix 43-48)

Surface Barrier Residual Applications

GR-AD PRO surface barrier applications can kill pathogens for up to 90 days. Even after manual cleaning these residuals are effective on elevator key pads, phones, remote controls, bed rails, and other high-touch surfaces. Utilizations range from microfiber manual wipes to electrostatic applications. GR-AD PRO complies with 21 CFR 170.39 for use on food prep surfaces without limitation to temperature or food type. It is non-leaching, nonabrasive and free of asthmagens, triclosan, sulfate and parabens as well as chemical vapors and VOCs. (Read more - Appendix 49)

PILLAR 5

EMERGING SOLUTIONS

Compass One forms strategic partnerships to access cutting-edge technology. These companies share the Compass One passion of promoting environmental hygiene and patient safety. As the leader in healthcare support services, we never accept status quo. Our specialists "turn over every rock," challenge every process, and study the market for new ways that work better and faster than our current "best".

New protocols are developed, standardized, and shared nationally. Metrics are created and applied to identify opportunities for improvement in the process itself. Even the metrics themselves are subject to constant review for a better, more sensitive tool. Compass One's protocols work because of frequent auditing, making adjustments, auditing again, and making adjustments again.

Compass One's strategy to identify emerging solutions includes:

- Allocating significant resources for piloting and studying the results of emerging innovative technologies
- Scientific testing of emerging antimicrobial product technology for reducing environmental contamination in the patient zone and publishing findings in the peer-review literature
- Closely following emerging pathogens, e.g., SARS-CoV-2 (novel coronavirus), Carbapenem-Resistant Enterobacteriaceae (CRE), *Candida auris*, etc., and adhering to CDC cleaning and disinfection recommendations and evidenced based practices
- Researching optimally constructed hospital furniture and equipment surfaces to reduce environmental contamination and maintain the structural integrity
- Implementation of newer technologies will always complement basic environmental cleaning and disinfection rather than replace unless proven over time
- Staying current with emerging and novel chemicals and technology

As the leader in healthcare support services, we never accept status quo. Our specialists "turn over every rock," challenge every process, and study the market for new ways that work better and faster than our current "best".

Crothall Environmental Service (EVS)

Crothall EVS was the first in the industry to standardize the use of ultraviolet (UV) technology. Crothall quickly identified UV as an innovation to destroy microorganisms and fight HAIs. After passing Crothall due diligence standards UV was added to the protocols. First, as part of the hospital patient room or operating room terminal disinfection process, the room is manually cleaned and disinfected. Then, UV technology is launched, with the Ultraviolet Germicidal Irradiation (UVGI) destroying airborne and surface microorganisms.

The National Action Plan to Prevent Health Care-Associated Infections recognizes the importance of using technology to prevent HAIs [54] . Crothall actively pursues emerging and novel antimicrobial product technology for safely reducing environmental contamination in the patient zone.

PDI Healthcare (https://pdihc.com/infection-preventionists) offers evidence-based, market leading environment of care solutions designed to help reduce preventable infections. One hospital wanted to decrease environmental contamination in a medical intensive care unit. The Sani-24 Spray disinfectant was evaluated against two EPA-registered quaternary ammonium disinfectants. The results demonstrated that the Sani-24 Spray was the only disinfectant able to significantly control bioburden on bed rails for up to 24 hours during active patient care, when compared to the other two products. (Read more - Appendix 50-52)

Patho$_3$Gen Solutions (https://www.patho3gen.com) combines ozone and UVC disinfection technology in a footwear sanitizing station that destroys 99.999% of deadly pathogens on the bottom of shoe soles that may lead to HAIs. AdventHealth Connerton implemented nine footwear sanitizing stations in February of 2019, resulting in a 53% reduction in infections through March of 2020. Overall staff satisfaction rate was recorded at 92% as staff felt more comfortable going home without concern for transmission. A 2017 independent study at Tampa hospital showed a 99.59% reduction in MRSA and a 97.5% reduction in *C.diff* after stepping on the unit for 8 seconds. (Read more - Appendix 53-56)

> Crothall quickly identified UV as an innovation to destroy microorganisms and fight HAIs.

> The results demonstrated that the Sani-24 Spray was the only disinfectant able to significantly control bioburden on bed rails for up to 24 hours

Allied BioScience, Inc. (https://www.alliedbioscience.com/) SurfaceWise2™ is a residual surface barrier effective against human coronavirus. Recontamination of surfaces can occur any time after the use of common disinfectants. SurfaceWise2™ continuously active antimicrobial coating is a quaternary ammonium polymer coating applied electrostatically. The coating formulation yielded a greater than 99.99% reduction of HCoV 229E within ten minutes of contact and reduces the concentration of these viruses by greater than 99.9% after two hours of contact. (Read more - Appendix 57)

Morrison Food and Nutrition Services (FNS)

Morrison's FNS implemented and assessed the impact of using single-use, disposable cleaning and sanitizing wipes at Ascension St. Vincent Riverside Hospital. They compared disposable wipes versus using the traditional sanitizer bucket and rag method. This department, with a longstanding history of compliance to ensure sanitary food preparation, experienced an 87% average decline in bioburden levels, thus reducing environmental contamination.

Summary

Over the years, countless new technologies have emerged. As part of our ongoing journey to continually improve and expand our support services, Compass One has put significant resources into piloting and studying the results of each new technology or innovation.

Clinical testing is always done in conjunction with our clients as well as third-party infectious disease and infection prevention and control experts. And, it is an ongoing process to exhaust all avenues in the search for better solutions.

Our Pandemic Response Playbook will always be a "living document". Compass One will continue to evolve protocols, products and train our people to respond effectively and appropriately as different strains of Novel Coronavirus and other pandemic threats emerge.

Compass One Healthcare's number one priority is to ensure the safety of patients, families, clinical staff, the community served and our own associates. This is met by:

- Integration with Client Infection Prevention goals and strategies
- Increasing the focus on patient safety and care
- Preventing HAIs
- Embracing innovative technologies
- Ensuring consistently high levels of cleanliness
- Employing environmentally conscious cleaning practices
- Raising patient and staff satisfaction
- Meeting regulatory compliance
- Guaranteeing service outcomes
- Keeping staff up to date with ongoing training programs
- Reducing supply costs
- Remaining customer-focused (e.g., provides independent continuous readiness audits)
- Focusing on standardization in protocols, quality assurance and management tools

compass one® healthcare
passion for the experience

Compass One Healthcare Overview

Compass One Healthcare is a premier food and support services company with more than 47,000 engaged team members focused on delivering quality, value, and exceptional patient experiences through the proprietary Positive Impressions™ program. Compass One offers specialized support services and protocols in more than 2,950 hospital and health system locations in 46 states.

Our branded sectors, Morrison Healthcare (food and nutrition services) **and Crothall Healthcare** (support services) **are nationally recognized** for employee engagement and training programs. We recognize that our people are our greatest asset and that our success is contingent upon the alignment of our people strategy and our business strategy.

Through a combined three-quarters of a century of healthcare experience, Compass One offers customer-focused core services in Food and Nutrition, Environmental Services, Patient Transportation, Healthcare Technology Solutions (Clinical Engineering), Facilities Management, Laundry and Linen, Sterile Processing, and Ambulatory Services.

Compass One is committed to the growth and development of its associates, and its unique Positive Impressions™ program features a team of 200-plus Patient Experience Managers dedicated to driving a better experience in each of our hospitals. Also, Compass One's exclusive partnership with Press Ganey leverages rich analytics to understand better how to provide welcome experiences for patients, family, customers, caregivers, and the community.

Compass One has put significant resources into piloting and studying the results of each new technology or innovation.

Crothall Overview

Crothall was founded in 1991 to address the need for a specialized, high-quality, innovative and responsive healthcare support services company. With more than 2,000 healthcare clients accompanied by an unblemished Joint Commission survey record, Crothall provides excellence with every delivered solution.

Crothall integrates scientifically proven, evidence-based recommendations, tools and industry best practices to fuel the Power of Clean. The Power of Clean recognizes the reality of clean by reducing environmental contamination, but also the perception of clean – the hospital must "feel" clean for patients and HCP. This synergistic approach, coupled with ongoing, extensive research and testing, assists with identifying many innovative, exciting, cutting-edge technologies that offer significant, unified advantages to augment our infection prevention and efforts.

Infection prevention and control is a constant battle that must be waged daily for the health and safety of everyone in the hospital. Crothall's people and processes deliver sustainable outcomes that meet high standards of quality and safety resulting in total customer satisfaction.

Crothall remains in the forefront and will continue to pioneer new solutions for our healthcare customers. No other company has the training, technology, and, most importantly, thorough processes, that have made Crothall Healthcare the industry leader.

crothall healthcare
A COMPASS ONE HEALTHCARE COMPANY

Crothall remains in the forefront and will continue to pioneer new solutions

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Morrison Healthcare Overview

Morrison Healthcare is a leading national food and nutrition services company exclusively dedicated to serving more than 800 hospitals and healthcare systems. Morrison uses the Power of Food to create personalized dining experiences for patients and in their cafés to advance the healing and healthful missions of its clients.

Morrison has been serving some of the nation's largest health systems for more than 65 years and leverages culinary, nutritional, and operational expertise to provide consistency and transform the healthcare experience. Morrison has more than 1,200 registered dietitians, 300 executive chefs, and 21,000 professional food service team members.

Morrison has been recognized as one of Modern Healthcare's Best Places to Work since 2012 and was named a Top 125 Training Organization by Training Magazine. Glassdoor also named Morrison a 2018 Best Places to Work.

Morrison has been recognized as one of Modern Healthcare's Best Places to Work since 2012

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Compass One's greatest difference is our specialized, leading-edge, best practices delivery model. Our focused, innovative performance within each skill set ensures our support services programs are best in class.

Bobby Kutteh, CEO

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"The very first requirement in a hospital is that it should do the sick no harm."

Florence Nightingale

compass one® healthcare

passion for the experience