

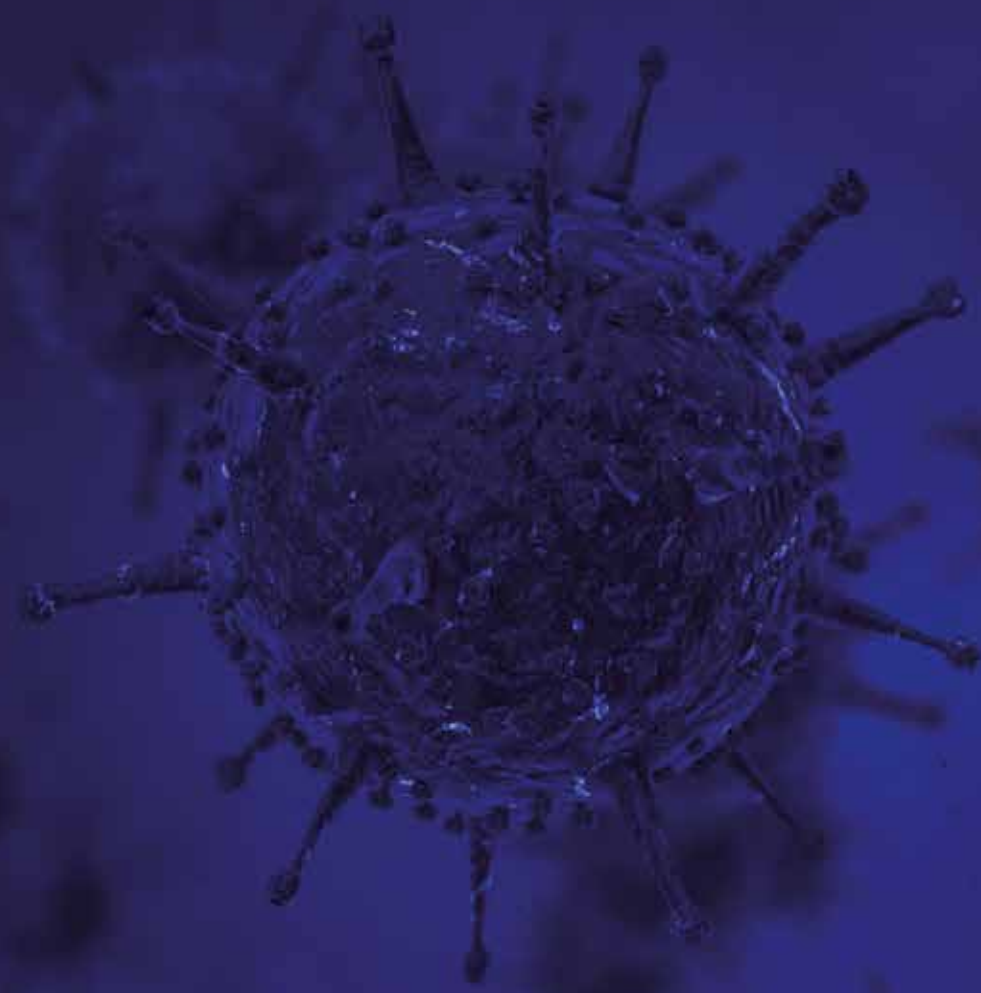
# PROTECTA

Environmental Infection Control



HEALTHCARE

**sodexo**  
QUALITY OF LIFE SERVICES



# THE THREAT FROM PATHOGENS

Every year hundreds of thousands of people around the world die from pathogen-related infections such as MRSA, C.diff or Pseudomonas. Equivalent to the amount of people who die from drug abuse globally.<sup>i</sup> Tragically, most of these infections are acquired within the hospital environment and many are entirely preventable.

In the United States alone, 750,000 people are infected during their hospital stay annually, resulting in some 75,000 deaths – or 200 a day.<sup>ii</sup>

To put that in context: when you board an aircraft, the chances of experiencing a fatal crash are 1 in 11,000,000. When you stay in a hospital your chances of contracting an infection are a staggering 1 in 25.<sup>iii</sup>

In the United States alone, 750,000 people are infected during their hospital stay annually.<sup>ii</sup>

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## WHAT MAKES PATHOGENS SO DANGEROUS?

- Infections are caused – and passed on – in many ways:** They originate from any number of sources, vectors and entities – be that people, equipment or infrastructure. With studies showing in many hospitals only 40-50% of the surfaces that should be disinfected by cleaners actually are.<sup>iv</sup>
- Infections travel at rapid speed:** Researchers from the University of Arizona contaminated a door at the entrance to an office building with a harmless virus. Within four hours, it had spread to over half the office's 80 employees.<sup>v</sup> In a hospital environment where the ebb and flow of patients, caregivers and visitors is so constant, that contamination rate will likely increase exponentially.
- Infections have long lifespans:** Pathogens are living dramatically longer. Their ability to learn and adapt means that germs that once lived for a few days or weeks at the most, can now stay active on surfaces for several months.

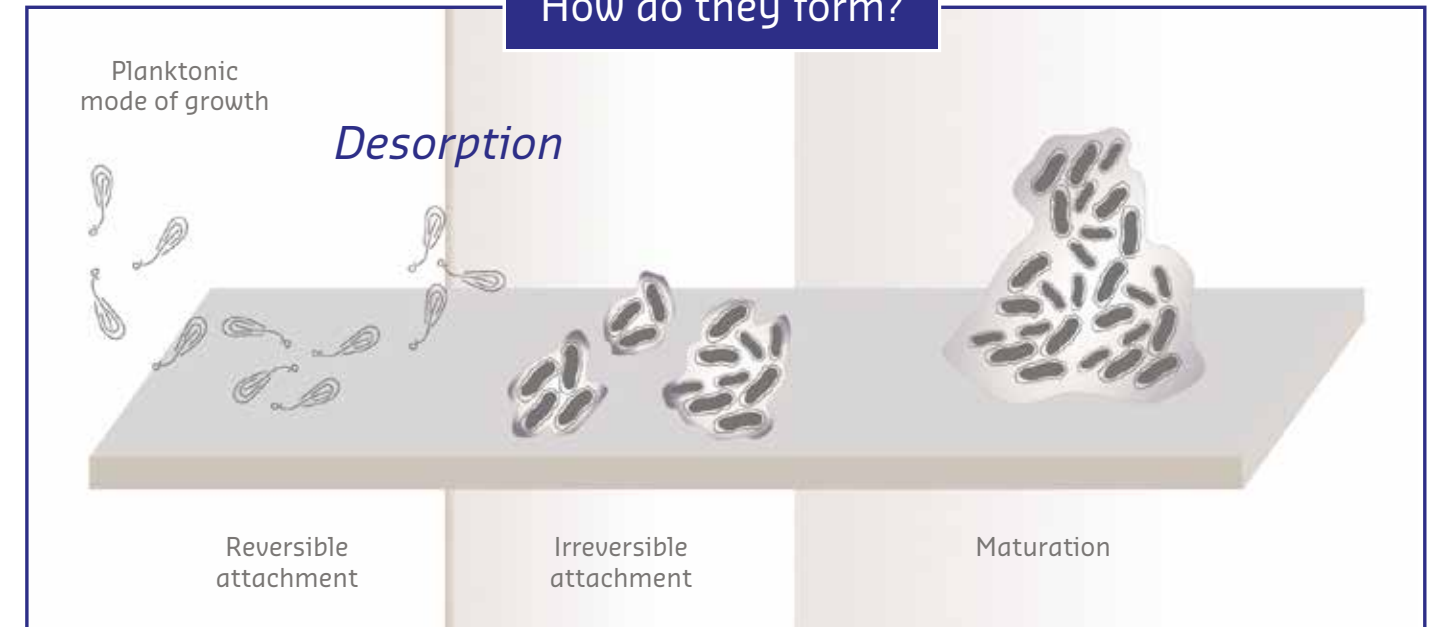
In many hospitals, less than **50%** of the surfaces that should be disinfected are actually cleaned by housekeepers.<sup>iv</sup>

### PATHOGEN LIFESPAN ON SURFACES



## BIOFILM:

### How do they form?



Biofilm form virtually everywhere.

- Biofilms:** Are communities of microorganisms forming a protective environment in which bacteria are allowed to thrive. As a biofilm grows it becomes immune to traditional hospital disinfectants, even bleach. These organisms can attract other pathogens and once exposed to traditional cleaning solutions and processes will alter their DNA, returning to the biosphere to communicate what they've learned, helping to adapt and create future resistance. An Australian study found that biofilm was discovered on an average of 93% of all hospital cleaning towels with 52% of samples containing multi-drug resistant bacteria.<sup>vi</sup>
- Anti-Microbial Resistance:** Use of antibiotics has grown exponentially since widespread introduction in the 1950's. Extensive, and sometimes inappropriate use in humans, together with increasing use in agriculture has resulted in pathogens adapting rapidly to medications which were effective in the recent past. In an environment where pathogens have, and are, adapting, effective hospital cleaning and decontamination becomes a crucial safety net, or last line of defense.

### Top Patient Fears

1	<b>INFECTION</b>
2	Incompetence
3	Death
4	Cost
5	Medical Mix-up
6	Needles
7	Rude Doctors & Nurses
8	<b>GERMS</b>
9	Diagnosis / Prognosis
10	Communication Issues
11	Loneliness

# THE FINANCIAL IMPACT OF HEALTHCARE ASSOCIATED INFECTIONS

While the primary reason to control infection rates is to protect life and avoid patient harm, the burning platform is one which also requires a full appreciation of the costs involved.

In the United States alone, Healthcare Associated Infections (HAIs) cost healthcare facilities around \$40 billion a year. That's a direct cost of approximately \$16,000 per infection, mostly due to HAI patient stays in hospital increasing to an average 9 days longer than that of an uninfected patient.<sup>viii</sup> Add to that the fact that regulators are now administering financial penalties to healthcare providers with above average infection rates, and the financial burden only becomes more ungainly.

And with HAI patients now directly impacting negatively on HCAHPS scores, it's not just fines that incur extra costs: damaged reputations and lost business do too. In fact, the cost of lost repeat and referral business for each 1% of dissatisfied patients is currently estimated to be in the region of \$500,000 per annum.<sup>ix</sup> And with vocal public condemnation now finding a platform by way of everything from satisfaction surveys through to social media, this is already proving incredibly damaging to the long term financial sustainability of healthcare institutions.

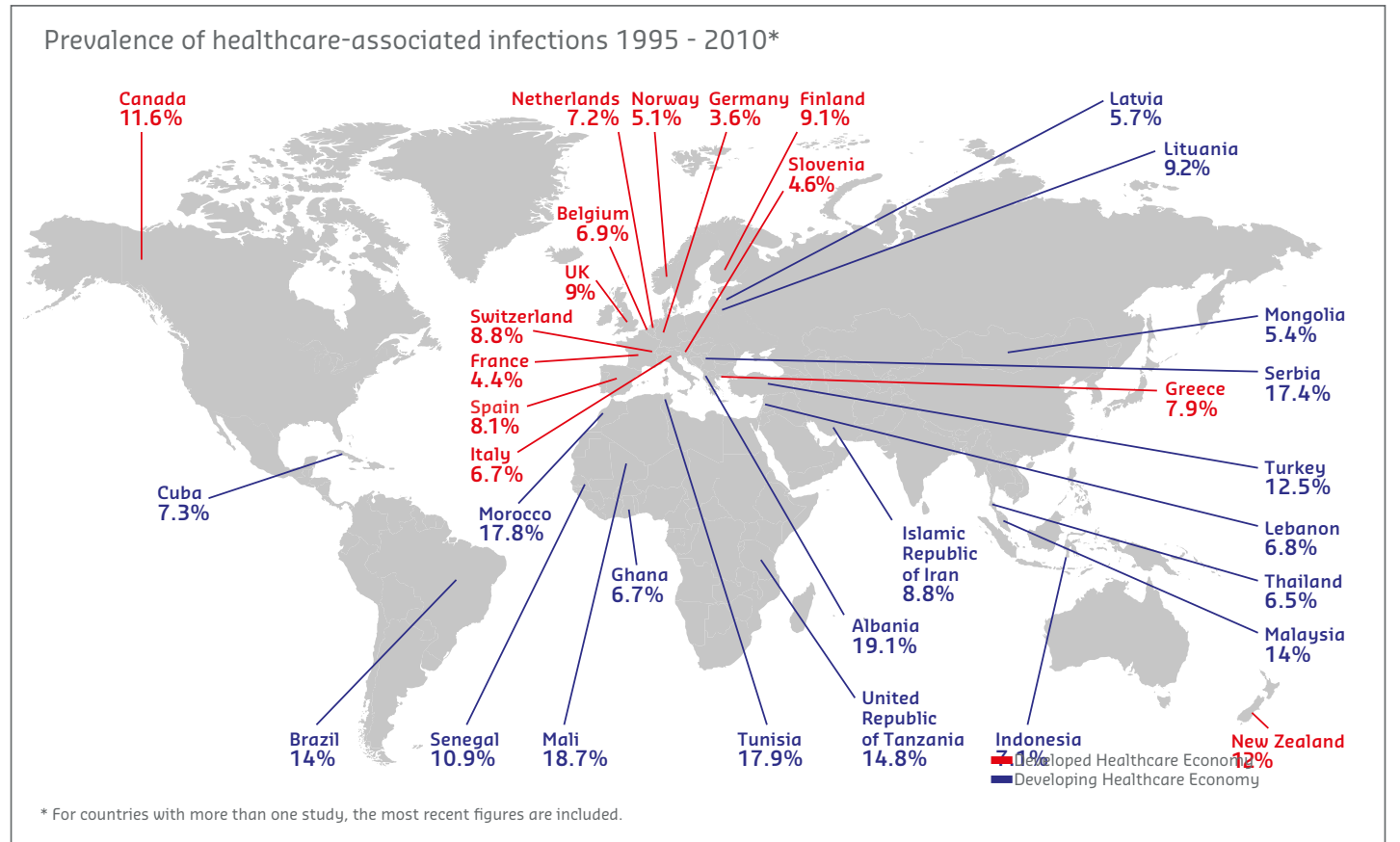
The cost of lost repeat and referral business for each 1% of dissatisfied patients averages \$500,000.<sup>ix</sup>



Unsurprisingly, countless global news stories have highlighted the increasing threat of pathogens over the last few years, to the point where infection has now become the number one concern for hospital patients.<sup>i</sup>

# THE GLOBAL CHALLENGE OF HAIs

As in the rest of the world, the US is facing universally tough challenges with regards to HAIs. HAIs prolong hospital stays, create long-term disability and increase the burden of antimicrobial resistance (AMR).<sup>x</sup> HAIs are currently costing the average 500-bed US based hospital \$5.5 million in lost revenue every year (\$40bn nationwide). Clearly it is a challenge no institution or country can afford to ignore.



- 1. HAI Frequency**  
 On average, 1 in every 10 patients is affected by HAIs worldwide. In acute care hospitals, out of every 100 patients, 7 in developed and 15 in developing countries will acquire at least one HAI<sup>x</sup>.
- 2. Intensive Care**  
 In developed countries, up to 30% of patients are affected by at least one HAI in intensive care units; in developing countries the frequency is at least 2-3 times higher<sup>x</sup>.
- 3. Impact of Infection Prevention Control**  
 Effective infection prevention and control reduces healthcare-associated infections by at least 30%<sup>xi</sup>.

The pathogenic organisms which have to be controlled vary somewhat from region to region, as do the incidence of the particular infections they cause. Therefore, the need to implement an effective environmental cleaning and disinfection system is clearly a multilateral one.

## SODEXO'S MANIFESTO FOR PATHOGEN CONTROL

We believe there needs to be a fundamental change in the way healthcare facilities approach cleaning. Visibly clean is no longer enough to keep people safe.

What is required today is total disinfection through a multi-pronged and multi-tiered approach to pathogen removal. Including a strict strategy for the effective identification and management of risk, and the implementation of practical and tenacious monitoring standards.



# ADDRESSING THE VISIBLE AND INVISIBLE RISKS IN HOSPITALS

Risk in hospitals falls into two distinct categories:

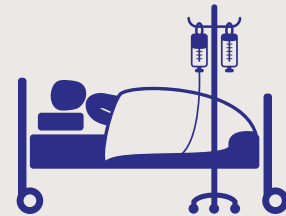
- **Biological risk:** This risk is ubiquitous and unrelenting, even in places that look perfectly clean. Pathogens are invisible to the naked eye, so it's easy to be lulled into a false sense of security. Tellingly, the biological risk is at its highest precisely where the confidence risk is at its lowest (when patients are under anesthetic in ORs).
- **Confidence risk:** The risk associated with visibly poor hygiene. It happens when a visitor spots an unwashed floor in the lobby, when a family member has to use a poorly cleaned toilet, or when a patient notices a nurse failing to wash their hands after entering the room. The impact of these confidence risks are predictably negative on public perception of the hospital's ability to prevent and control HAIs.

## A FEW EXAMPLES:



### MAIN ENTRANCE

High confidence risk but a low biological risk.



### PATIENT ROOM

High confidence risk and a high biological risk.



### OPERATING ROOM

Low confidence risk but a high biological risk.

Helping you shift from “visibly clean” to “microbiologically clean” is the obvious solution to addressing both the biological risk and the confidence risk simultaneously. Arming your institution with the preparedness to prevent and/or respond to infection outbreaks. Sodexo's Protecta - Environmental Infection Control has been meticulously designed to achieve exactly that.



# INTRODUCING PROTECTA – ENVIRONMENTAL INFECTION CONTROL FROM SODEXO

Protecta – Environmental Infection Control encompasses three key aspects in the fight against HAIs: highly trained and engaged people, rigorous standardized processes and superior technologies.

## 1. HIGHLY TRAINED AND ENGAGED PEOPLE:

Despite numerous technological advances, hospital cleaning is still a largely human-driven activity. Environmental, domestic and housekeeping staff in hospitals are – and always will be – on the frontline in the prevention of infectious diseases. So it's no surprise that properly trained personnel are a mandatory element of any well implemented, managed and effective Environmental Infection Control (EIC) program.

Yet in order to ensure financial viability, many hospitals have been forced to dramatically cut numbers of cleaning staff over recent years (more than 25% over the past 10 years).<sup>xii</sup> With those employees who remain now among the lowest paid in the entire facility, despite their jobs also being one of those same facility's most physically demanding.

In effect, fewer people are being tasked with doing more. And alarmingly it's in a place where the quality of their work can directly affect the health and safety of every staff member, patient and visitor in their given hospital.

At Sodexo, we don't subscribe to the "race to the bottom" philosophy. We know there's a better way to achieve your goals; ensuring superior outcomes whilst still providing the value and cost effectiveness your budgetary constraints demand. Comprehensive training, meaningful recognition and a caring culture underpin our approach.

By educating cleaning staff about the dangers of HAIs, we ensure they have the right tools for the right task. And by implementing rigorous audit and training programs we are able to significantly alter deeply ingrained behaviors that might once have jeopardized the safety of the patients in your institution.

## 2. RIGOROUS STANDARDIZED PROCESSES:

Keeping up with the changing knowledge base and new technologies in infection control requires an ever-increasing investment of time and effort on your part. It's a situation that's often exacerbated by a lack of clarity and consistency regarding responsibility for cleaning items and areas, as well as how often various elements should be cleaned. And sometimes even the correct techniques or processes aren't properly performed by your cleaning staff.

That is, unless you bring in an experienced partner to provide a framework in which processes and standards can take effect and manage the myriad of detail for you. Every single thing your Sodexo team does has been analyzed, systematized and standardized to ensure infection control is being accomplished in the most expedient and effective way – and at the lowest cost.

Our clear operating standards will bring clarity and consistency by identifying the responsible party for each individual task. We'll then designate the appropriate chemicals and materials to that party and ensure strict documentation of the effective process. Together, we will define performance metrics specifically tailored to your facility and its needs.

A Boston University study showed that manual cleaning misses 50% of 'high touch' surfaces due to inadequate tools (chemicals and wipes), improper processes and a focus on visual cleaning only. One in four patient rooms still contained some form of pathogen even after four rounds of bleach disinfection.<sup>xiii</sup>

Another study, this time from Spain, reveals that 75%+ of medical staff inappropriately or inadequately washes their hands.<sup>xiv</sup>

### 3. SUPERIOR TECHNOLOGIES:

While the healthcare industry has made incredible advances in medicine and medical equipment over the years, hospital cleaning and hygiene technologies haven't always kept pace. Cleaning technology is often outdated, inadequate or poorly maintained. And with no formal process to evaluate or implement new innovations and technologies, the situation isn't likely to improve.

Fortunately that's exactly what we're here for. Scouring the globe for the safest, most effective and sustainable innovations, Sodexo has partnered with "best-in-class" thought leaders on all continents. We have devoted significant resources to tracking new developments, evaluating their scientific validity and then bringing them to market where there is a good evidence base to support their use. It allows us to offer a proven approach to fighting infections. No other support services provider can boast our resources or our global partnerships.





# THE PROTECTA ADVANTAGE

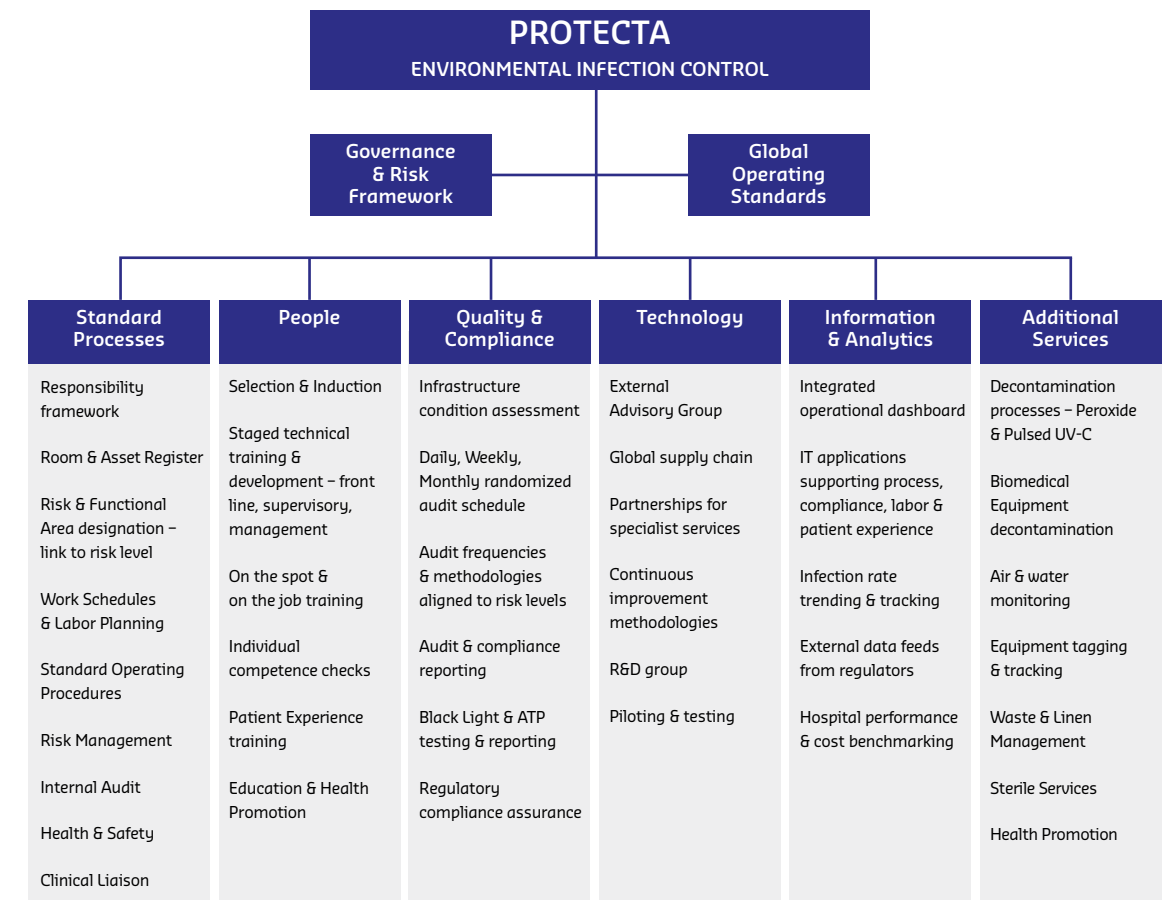
The fight against hospital acquired infections requires total disinfection through a multi-pronged approach to pathogen removal.

This is what Protecta - Environmental Infection Control is designed to do.

Protecta - Environmental Infection Control is based on Sodexo's decades of expertise in hospital environments. And our aligned approach of highly trained people, rigorous processes and superior technology, provides complete Environmental Infection Control through an integrated set of services focusing on six key areas: Governance; Standardization; Management; Learning & Development; Quality, Audit & Compliance; and Information & Analytics.

However, as with any full-service, holistic approach to combatting the spread of pathogens, it's not enough to simply co-opt one or even two of our guided methods. Even if you feel that some aspects are more relevant to you than others - pathogens do not discriminate.

All vulnerabilities present an equal opportunity to infect.



## THE PROTECTA ADVANTAGE

### GOVERNANCE & RISK FRAMEWORK

#### Driving Responsibility Through Clarity

Central to our offering is the concept of governance. Effectively this means ensuring that a cleanliness and infection control policy is agreed with the healthcare provider from the very beginning. This will cover clarity on areas of responsibility, how often reporting systems and processes are to be employed, what audit and quality protocols are to be established, and most importantly how Sodexo adds value to the day-to-day operations of complex organizations. Our aim is to ensure we continually improve what we do in a planned and controlled manner. Measuring the appropriate KPIs and reporting on them in a clear, concise and transparent way.

We have developed our own operational and risk framework for cleaning and infection control in hospitals. At the core of which are scoring methodologies for both biological and confidence risks. We work with our clients to develop a specific risk profile for individual areas within the hospital (and all the assets within them) and use this profile to designate a set of frequencies, methods and materials unique to that location.

### GLOBAL OPERATING STANDARDS

#### Delivering Confidence Through Trusted Procedures

We have formed Standard Operating Procedures based on over 30 years' experience of infection control in hospitals. Developed globally, they are then adjusted for local regulations and cover every type of internal location and asset, as well as the current infection status. This means we design our labor model around the SOPs for a given level of activity and risk. This gives us predictable outcomes and the flexibility to adjust things quickly (and in a controlled way) when the need arises.

### STANDARD PROCESSES

#### Accountability Across All Areas

As you would expect from a company present in over 3,000 hospitals globally, Sodexo has established a deeply comprehensive knowledge base geared to the effective management of hospital environments. From the fundamental but crucial tasks of waste & linen management to the more complex and sophisticated activities like supply chain management, our administrative services are integrated to ensure a safer environment within the hospital and an easier life for you. All part of our 'Quality of Life' offering.

### LEARNING & PEOPLE DEVELOPMENT

#### Educating and Empowering Individuals

It's all very well having standard ways of doing things, but they've got to be executed the same way every time. To deal with the natural variation inherent to a very labor-heavy service, our education and learning programs support every employee – front line staff, supervisors and managers. Starting with hiring the right talent to appropriate training on tools, techniques and safety, through to education on infectious diseases and microbiology. We provide everyone with a well-rounded and engaging program. Our approach is designed not just to impart knowledge but to drive the attitude and behavior required to deliver lasting results. By recognizing the importance of taking pride in their role and understanding the difference they can make to the health of the entire hospital population, our learning and development programs engage both the 'head' and the 'heart' of frontline and back room staff. The training program is supported off-site via a global team of subject matter experts, which local management can call upon.

## THE PROTECTA ADVANTAGE

### QUALITY & COMPLIANCE

#### Consistent Monitoring Effectively Scheduled

We've developed audit and inspection methodologies and frequencies to ensure hospitals have confidence that the right thing is being performed in the appropriate way to the correct standard: from daily through to monthly scheduling, each area of a hospital and every asset within it is inspected for cleaning effectiveness. To do this we use visual inspections to monitor the 'Confidence Risks' and Black Light inspections to address the 'Biological Risks', supported by ATP swabbing (particularly in higher risk areas).

### TECHNOLOGY, INFORMATION & ANALYTICS

#### Utilizing Data to Deliver Results

In order to ensure day-to-day management of risk, activity and outcomes, we use our own proprietary IT solutions. These not only manage assignment of tasks and activities, they also capture hospital reporting on both visual and microbiological standards, with links to ensure we're tracking the level, type and location of any HAIs. This enables us to look at activity versus risk on a regular basis and to manage outbreaks effectively, moving resources around a hospital to where they are most needed.

We also deploy labor management systems and processes to assist with the efficient deployment and utilization of our monitoring solutions. And our own real-time patient experience software enables us to respond to patient concerns or feedback immediately. We present all of our data through a dashboard adapted to individual hospital needs and requirements.



## ABOUT SODEXO

Sodexo USA is a Fortune 500 company with a presence in over 80 countries worldwide; making us the global leader in Quality of Life services.

Delivering more than 100 services across North America, Sodexo is the only company to integrate a complete offer of innovative services from over 100 professions. We develop, manage and deliver a unique array of On-site, Benefits & Rewards and Personal and Home Services for all our clients to improve their Quality of Life.

For over 50 years we have developed unique expertise backed by nearly 425,000 employees from across the globe. Employing 123,000 Americans at 12,500 sites across the country and indirectly supporting tens of thousands of additional U.S. jobs through our annual purchases of \$9.2 billion in goods and services from small to large American businesses.

Enabling us to develop Quality of Life services that reinforce the well-being of individuals, improve their effectiveness and help companies and organizations to improve their own performances... every day.

### SODEXO TODAY

  
+ **120,000**  
US employees


  
**80**  
countries worldwide

  
+ **\$9** BILLION  
US revenue

  
+ **100** SERVICES  
delivered across US

  
**12,500**  
sites

  
**#1**  
French-based employer worldwide

  
**68%**  
level of  
employee engagement  
worldwide

  
**#1**  
in its industry sector in both the DJSI  
and the 2016 Sustainability Yearbook

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