



Well Hotel
Specific measures to ensure a
healthy and happy stay



Agenda

- Introduction to Well Hotels
- Definition of Infection
- Transmission of Infection
- 5 Modes of transmission
- Definition of an Outbreak
- Major groups of microbes
- Facts and figures
- How do you create a Well Hotel
 - Prevention
 - Control
- Product Recommendations
- Support Elements

Introduction to Well Hotel

- A Well Hotel is a hotel which is focused on infection prevention to ensure guest and staff safety.
- A Well Hotel protects its brand and business through a good understanding of infection prevention and outbreak control.
- A Well Hotel will operate with clear procedures, effective products and efficient staff training.

Introduction to Well Hotel

- Currently, housekeeping practices concerning disinfection vary across brands and properties with little standardisation and understanding industry wide.
- As the public becomes increasingly concerned with infections and public health, hotel room cleanliness is becoming a consideration factor when selecting a hotel room.
- Through our industry expertise specifically working within healthcare and our effective market leading products Diversey will help your business become a Well Hotel.

What is an infection

- Infections are caused by pathogens ('bugs') such as bacteria, viruses, yeasts or fungi that enter into the body.
- It can take some time before the microbes multiply enough to trigger the symptoms of an illness, which means an infected person may unwittingly spread the disease during this incubation period.
- Sometimes people with strong immune systems do not fall ill themselves and yet still transmit pathogens to others who may not be so lucky.
- Instances of transmission can rapidly escalate into larger scale outbreaks which are often difficult to control and extremely damaging to health and business alike.
- It is the responsibility of employers to provide a safe environment for their employees and guests, which includes the provision of adequate infection prevention procedures.

How are infections transmitted

- Pathogens can spread in a variety of ways and understanding these different modes of transmission will help your staff to adopt good infection prevention practices.
- Infectious agents can be spread in a variety of ways, including:
 - Airborne
 - Contaminated food and objects
 - Skin to skin contact
 - Bites
 - Contact with body fluids

We classify these modes of transmission in 5 ways

Five modes of transmission

Contact

- Direct: body surface to body surface
- Indirect: contaminated intermediate object (needle stick)

Droplet

- Coughing, sneezing, medical procedures (The person is infected)

Airborne

- Small evaporated droplets that remain suspended for a long time and spread via air current (The air is infected)

Vehicle

- Via a contaminated object that is ingested such as water, food or contaminated medicine

Vector-borne

- Via an animal/insect that transfers the micro-organism to another host: Mosquitoes, flies, rats

Five modes of transmission



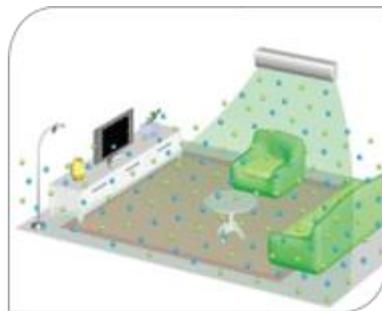
DIRECT CONTACT



INDIRECT CONTACT



DROPLET < 1 meter



AIRBORNE > 1 meter



VEHICLE



VECTOR

How are infections transmitted

- If infected people sneeze or cough they can spread germs through tiny airborne droplets. These droplets can land on surfaces.
- Hands and surfaces soiled with nasal and throat excretions can then aid the spread of the disease. Some of the infections that are spread in this way include:
 - The Common Cold
 - Chickenpox
 - Diphtheria
 - Influenza
 - Measles
 - Norovirus (Viral gastroenteritis)

Definition of an outbreak

An outbreak is a sudden or violent start or increase of something unwelcome, in this case, disease.

Epidemiology is the study of the distribution and patterns of outbreaks and their causes across different populations.

Epidemic: disease occurring suddenly in numbers clearly in excess of normal expectancy in some areas e.g. EHEC the recent ecoli outbreak

Endemic: disease present or usually prevalent in a population or geographic area at all times e.g. Chicken Pox is endemic to the UK, Malaria is not

Pandemic: a widespread epidemic distributed or occurring throughout multiple regions or globally e.g. H1N1, H7N9

Definition of an outbreak

These definitions assist in finding the right measures to take to protect your hotel.

Scanning the news and sites like www.cleanerandhealthier.com will help you to recognise arising epidemics and pandemics and the precautions you should take to avoid them

An awareness of endemic diseases such as influenza and everyday protocols to prevent their spread will also help you maintain a well hotel

.

Localised outbreaks

Obviously precautions should be taken when outbreaks occur in your area, but you should also monitor your own establishment to react quickly to any outbreak that may start in your facility.

If you identify that 2 people from separate parties or 3 from the same party are exhibiting similar symptoms you should initiate your outbreak protocols and increase your level of hygiene. If the illness includes body spillages enforce your isolation procedures immediately.

It is much easier to prevent an outbreak than to control one, so always be aware of the level of health of your employees and visitors and ensure hygiene protocols for infection prevention are followed.

The major groups of microbes

Bacteria (Gram-positive, Gram-negative)

- Diphtheria

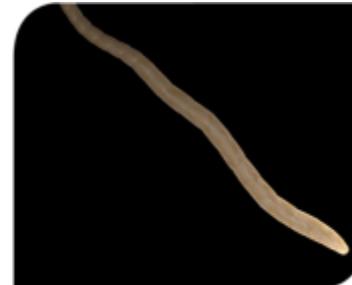


Viruses (enveloped and non-enveloped)

- The Common Cold

Fungi

- Athletes Foot



Protozoa

- Malaria

Bacterial Spores

- Clostridium difficile

Prions

- BSE (Mad cow disease)

Bacteria versus virus

Bacteria:

One-celled living organisms

They all have a cell wall

They can reproduce independently

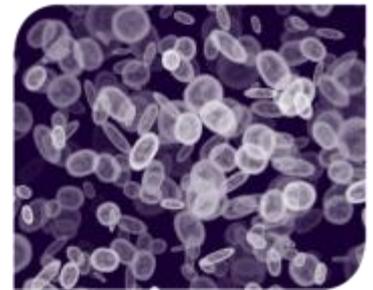
They inhabit virtually every environment on earth

Some are good (break down organic waste, make yogurt and cheese, etc.)
and some cause disease

Virus:

They need a host

They are “dead” unless they live on a host cell, they
take it over and make the host cell produce more virus



Bacteria

Microscopic, one-celled organisms that are invisible to the naked eye: 400 million bacteria grouped together would be the size of a grain of sugar

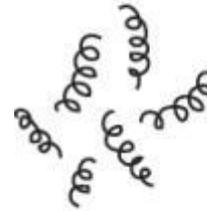
Classified by shape:

- Spiral (spirilla)
- Rod (bacilli)
- Round (cocci)

Classified by Gram staining

Vegetative forms are killed relatively easily by chemical germicides such as alcohol

Bacterial Shapes



Spirilla



Bacilli



Cocci

Bacteria

Water

Water is essential for survival

Bacteria are primarily comprised of water and proteins

- Water holds the structure of the bacteria together
- Water transports nutrients into the cell and removes waste



Food

- Both organic and inorganic materials are utilised as food
- Different types of bacteria have different requirements for food types and quantities



Bacteria, oxygen

Oxygen requirements vary by type of bacteria

Aerobic bacteria require oxygen to survive (*Salmonella*, *Pseudomonas*)

Anaerobic bacteria grow only in environments without oxygen (*Clostridium difficile*)

Facultative anaerobic bacteria can survive in either environment



Bacteria temperature and pH

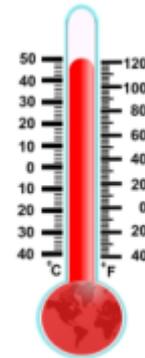
Temperature affects the reproduction cycle

Bacteria that affect humans thrive at normal body temperatures

Other bacteria can grow at temperatures as low as 10°C and some as high as 50°C

pH level refers to the amount of acid or alkali present in an environment

Optimal growth environment for bacteria is usually pH7 or neutral



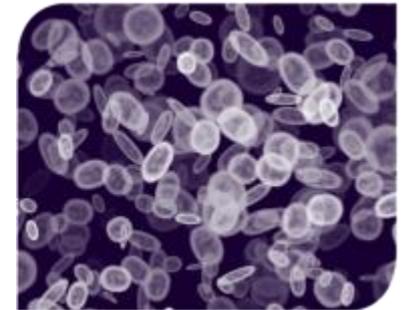
Bacteria tough enemies

Bacteria reproduce by a single cell dividing into two cells, these new cells split into 2 more cells, etc.

Under ideal conditions, one cell can generate an entire colony of over 1 million bacteria in under 5 hours

Bacteria can develop an immunity or resistance to the antibiotics designed to kill them. Hence the requirement for new treatment options

However, resistance to antibiotics does not necessarily mean that the bacterium is resistant to disinfectants



Viruses

Viruses are classified by shape, size and other structural characteristics.

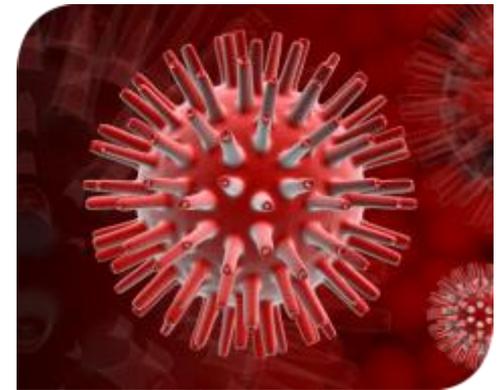
They fall into two groups : enveloped and non-enveloped

Enveloped viruses

Envelop refers to a lipoprotein outer layer that is derived from plasma membrane of the host cell

The envelop provides the link between the virus and the host. As the envelop can be weakened, enveloped viruses are easier to kill than actively growing bacteria

Examples: HIV, Herpes, Hepatitis B & C, Coronavirus, Influenza



Enveloped Herpes virus

Viruses

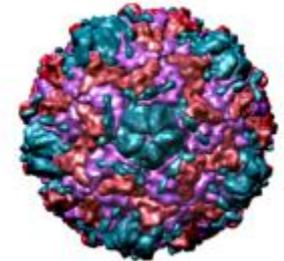
Non-enveloped viruses

Non-enveloped viruses lack the lipoprotein coat

Considered more resistant

Examples: Polio, Norovirus, Rhinovirus, Rotavirus,
Parvovirus

Rhinovirus



Polio



Viruses

Disease caused by virus :

- Warts
- Cold
- Influenza
- Hepatitis
- HIV



Fungi

Uni-cellular or multi-cellular organisms

Can cause many diseases in animals and humans

Grow on dead and decaying material

Can be as small as a single cell or as large as a mushroom

Common forms are yeasts and moulds including mildew

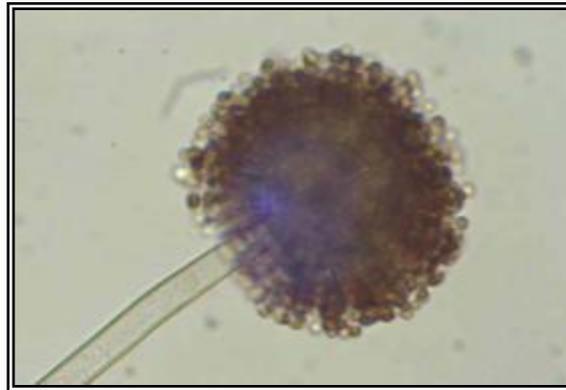
Most fungi are harmless or “non-pathogenic”

Fungi

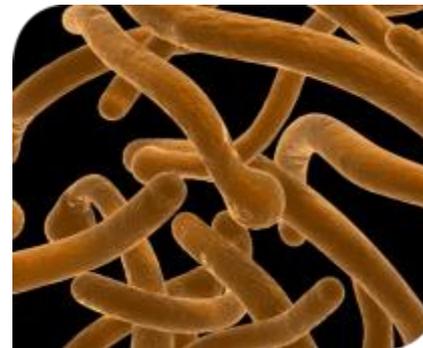
Examples of pathogenic fungi

Yeast: *Candida albicans*

Fungi: *Aspergillus niger*



Aspergillus niger



Candida albicans

Bacterial Endospores

Spore implies seed. Endo means within.

Endospores are structures formed within vegetative (free-floating) bacteria

They are non-reproductive and dormant but tough

Some Gram-positive bacteria can reduce themselves to Endospores to survive in difficult conditions that would be lethal in their vegetative form

Endospores are highly resistant to many chemical and environmental stresses

Some high-level disinfectants claim sporicidal activity (chemical sterilant)

Bacterial Endospores

Examples:

Clostridium difficile

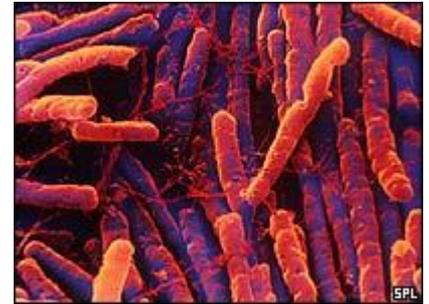
Bacillus subtilis

Bacillus anthracus

Spores of *Bacillus subtilis* and *Clostridium sporogenes* are surrogates in tests

Spores cannot be killed by Alcohol

Many people have *Clostridium difficile* spores living in their bowels that cause no problems at all.



Clostridium difficile

Biofilms

A biofilm is a complex matrix of micro-organisms that excrete a protective adhesive to hold them together

The excretion is called EPS (Extracellular Polymeric Substance)

They are usually bacterial combinations but can also include yeasts

- They are not vegetative (free-floating) forms rather they are interconnected
- Biofilms form a barrier against their environment allowing them to survive as a group rather than fight the elements solo
- They can share genetic information within their group which can cause issues like antibiotic resistance
- They need a surface to form



Strength in Numbers
Staphylococcus aureus Biofilm

Norovirus

Non-enveloped virus

Incubation time: 10 hours - max. 3 days

Transmission:

- person-to-person contact (faecal-oral route)
- faecal contaminated drink and food (seafood)
- environment, air-borne (aerolization with vomitus)

Very easily transmitted

Symptoms are nausea, vomiting, diarrhoea, abdominal pain

The virus is inactivated by chlorine-based disinfectants, but less susceptible to alcohols and detergents therefore it is critical that the concentration is right.

Norovirus threats



Norovirus is a growing global burden

It is the most common cause of community-acquired gastroenteritis, in people of all age groups

It's thought the clinical impact of outbreaks is greater than realised

Norovirus is difficult to control because:

- It spreads quickly and extensively

- All ages are affected due to the poor human immune response

- It is difficult to diagnose as it has common symptoms

Norovirus threats

Outbreaks are difficult to prevent, but rapid control reduces impact

Diversey can help to provide training on :

- The risks of Norovirus

- The sources of infection

- The steps they can take to control the infection

 - Hand hygiene

 - Environmental cleaning

 - Body Spillage handling

Facts and figures

Contact with contaminated surfaces is a possible mode of transmission of illness, especially during outbreaks in hotels.

The most contaminated areas in the rooms include high frequent touch areas such as the TV remote, light switches and the telephone.

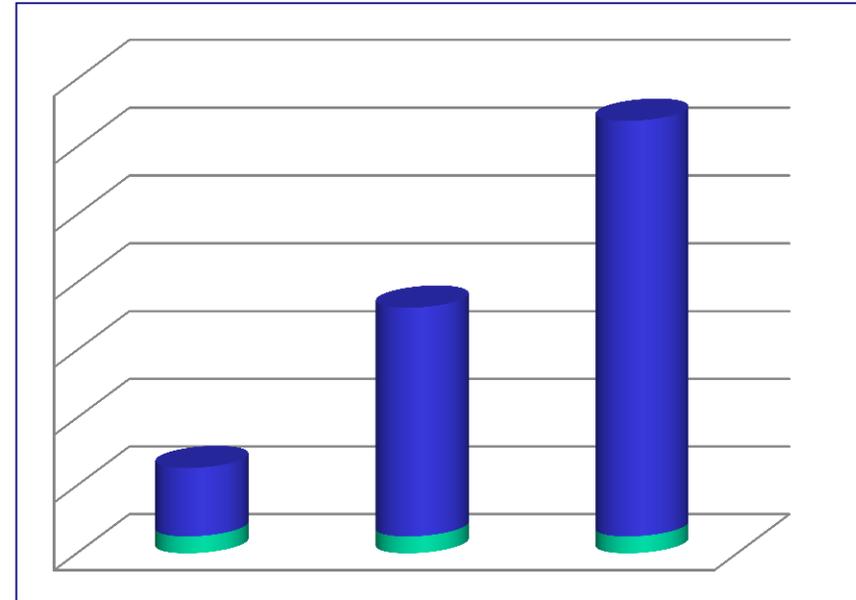


Facts and figures

A small study carried out in hospitality in Texas found that there were the following CFU per cubic centimeter squared:

- 20.2 - telephone keypad
- 67.6 - TV remote
- 122.7 - light switch (111.1 were fecal bacteria)

The suggested guide for CFU (colony forming unit) of bacteria in healthcare is 5 per cubic centimeter squared as the highest limit tolerated.



Fact and figures

An outbreak or even a single case of a guest being ill in a hotel can have a serious impact on the reputation of the hotel and brand.

Lost customers will never return to “that hotel” and will tell friends and family.

1 of every 4 people will catch a foodborne illness this year
200+ deaths from foodborne illness

How do you create a Well Hotel Prevention

Infections can be prevented or controlled by reducing the opportunities for infection transmission. This can be achieved by adopting basic infection control practices.

Currently, housekeepers clean 14-16 rooms per 8-hour shift, spending approximately 30 minutes on each room.

By identifying high-risk items within a hotel room and in public areas you will support your housekeeping managers to strategically design cleaning practices and allocate time to efficiently reduce the potential health risks posed by microbial contamination in hotel rooms

Strategic cleaning and disinfecting will reduce the opportunity for pathogenic outbreak.

1. Clean all areas daily
2. Maintain excellent hand hygiene
3. Use a disinfectant for targeted disinfection of frequently touched surfaces
4. Deal with body spillages immediately

How do you create a Well Hotel

Effective hand hygiene

- Effective hand hygiene is the greatest single measure that you can take to prevent the spread of pathogens.
- The first decision you should make is whether to wash or disinfect your hands.

You should wash your hands if you:

- Can see soiling on your hands
- Think you have been in contact with a spore based illness
- Have just used the toilet
- Are about to prepare food
- Have just completed a dirty task (emptied the bins)

At all other times sanitising them should be sufficient.

How do you create a Well Hotel

Effective hand hygiene

To wash your hands effectively

1. wet them
2. apply soap
3. lather it fully and rub your hands together for at least 20 seconds
rinse all the soap off
4. dry them fully with a paper towel

To make sure you have washed every part of your hands we recommend you follow this illustration.

The Steps to Effective Hand Hygiene

Hand Washing

1. Wet hands

2. Apply soap

3. Rub hands together

4. Rinse hands

5. Dry hands

You can download a copy of this illustration to place on your wall from the download section of our site: www.cleanerandhealthier.com. It is available in 15 different languages.

For hand washing Diversey has a great range of products including Soft Care Sensisept.

How do you create a Well Hotel

Effective hand hygiene

Hand sanitising effectively reduces the number of microbes on the hands. It is quick and easy and requires no water or hand towels.

To sanitise your hands

1. apply 3mls of alcohol gel
2. rub them for 30 seconds
3. do not rinse or dry the hands
4. The gel will evaporate

To ensure you cover the entire hand you can use the same method as seen in step 3 for hand washing.



How do you create a Well Hotel

Surface disinfection

General hard surface cleaning & disinfection process

Always work from clean to dirty and from top to bottom to stop cross contamination:

- Begin with the cleanest areas such as windows and mirrors
- Then move on to the wash basins, shower and toilet area.
- Make sure you have used a cleaner disinfectant on anything that is very likely to have been touched, like the phone, the remote and the light switch.
- Clean the floor last

- If a microfibre system is in place, clear colour coding should be followed to stop cross contamination. Typically use Red – washroom, Blue or Green – public areas and bedrooms

- Staff should be wearing gloves and apron to protect them

How do you create a Well Hotel

Surface disinfection

Certain environments offer greater opportunity for spread of pathogens from one individual to another. These include areas where public traffic is high, body spills are frequent or a high level of hygiene is critical.

High risk infection areas need to be cleaned on a regular basis to create a barrier against pathogen spread.

Areas to be considered as high risk include:

- Frequent touch areas in bedrooms and public areas
- Telephones
- Door handles
- Locks
- Light switches
- Toilet flush handles
- Taps

How do you create a Well Hotel Control

It is difficult to predict instances of illness or outbreak, especially when large numbers of people gather in close proximity to one another.

The important factor is to be prepared.

Precautionary measures and ensuring you have the right resources on site to enable a speedy response to illness will be the difference between a few isolated instances and a full blown outbreak.

Ultimately outbreaks are more difficult to control and costly to business. This is why prevention is better than cure.

How do you create a Well Hotel Control

In the event of a suspected outbreak, i.e. an increase in normal levels of illness, on site or in a location nearby the following process must be initiated.

1. Establish the cause of the infection – rule out food poisoning
2. Isolate guests and personnel as much as possible.
3. Staff exhibiting signs of illness should be excused from work for a full 48 hours after symptoms disappear.
4. Guests showing signs of illness should be advised to remain in their room/accommodation and to avoid using public facilities.
5. Cleaners/staff should only enter rooms/accommodation occupied by ill guests when absolutely necessary and should wear disposable protective clothing (gloves, apron and mask).
6. Cleaning staff must ensure appropriate materials are available prior to starting ANY cleaning task.
7. Person to person contact should be limited.

How do you create a Well Hotel Control

8. Increase the instances of hand hygiene, especially prior to person to person contact.
9. Increase the thoroughness of cleaning and use a cleaner disinfectant for daily surface cleaning.
10. Clean and disinfect high risk areas at a greater frequency (hourly if possible).
11. Deal with body spillages immediately.
12. Rooms/beds vacated by unwell guests must be aired and quarantined until a full deep clean and disinfection can be initiated.

Dispose of any foods as contaminated waste.

Deep clean all vacated rooms including carpets & curtains.

Items that are transported to the laundry should be clearly labeled to alert handlers to the associated risk.

Creating a Well Hotel

Dealing with a body spillage

All body spillages, whether an isolated instance or not, must be considered as contaminated and a potential infection risk. Report any spillages immediately to the relevant management.

It is extremely important that staff take measures to protect themselves. Staff should wear:

- Disposable plastic gloves
- Disposable plastic apron
- Disposable face mask
- Goggles if required

In order to carry out the procedure correctly the following materials must be available:

- Disposable paper towels
- Plastic clinical waste bag
- 'Closed for cleaning' signs
- 'Danger wet floor' signs

Creating a Well Hotel

Dealing with a body spillage

1. Cover the body spillage immediately without coming into contact with it, this will prevent airborne contamination.
2. Put on disposable gloves and apron.
3. Put out “cleaning in progress” sign and isolate area.
4. Pre-soak a disposable cloth or paper towel with disinfectant and use it to remove any solids and absorb any spillage. Place in plastic bag for disposal.
5. Spray disinfectant onto the area of the body spill as well as the surrounding area (up to 1m vicinity).
6. Allow the recommended contact time for the disinfectant you are using.
7. Remove the remaining body spillage with disposable cloth and place in plastic bag for disposal.
8. After complete removal, reapply disinfectant to the spill area. Allow the recommended contact time before wiping dry.
9. All soiled materials and protective clothing must be deposited into a yellow clinical waste bag and disposed as contaminated material.
10. Wash hands thoroughly for at least 20 seconds using hand soap.

Product Recommendations

Application	Product Option
Daily hard surface cleaning	RoomCare R2 plus Ultra microfibre cloth
Frequent touch areas	1) Oxivir Plus 2) Chlorinated disinfectant 3) Quat-based disinfectant Ultra microfibre cloth
Hard surface cleaning at risk of outbreak	1) Oxivir Plus 2) Chlorinated disinfectant 3) Quat-based disinfectant Ultra microfibre cloth
Hand washing	1) Soft Care Sensisept 2) Anti-microbial handsoap
Hand sanitising	1) Soft Care Med/Des E 2) Alcohol-based hand gel
Food contact surfaces	1) Suma Bac D10 Conc 2) Quat-based disinfectant



See <http://www.diverseym.com/cleanerandhealthier/en/products>

Support elements

- Well Hotel training presentation covering prevention and control
- Well Hotel guides covering prevention and outbreaks
- Well Hotel wallcharts to help re-enforce the right procedures and products to use (eg. Hand hygiene...)
- Method cards (disinfectant procedures, body spillages...)



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BOLD REGIONS ARE DIVERSEY KEY MARKETS



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