JANITORIAL express

Guide to Colour Coding and Infection Control

JANGRO

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Colour Coding and Infection Control

Introduction

Whenever and wherever cleaning is taking place, it is extremely important that all potentially harmful bacteria are prevented from travelling around the building. One of the ways in which such bacteria can be transmitted throughout a building is via the same cleaning equipment and solutions being used in areas of different use i.e. using the cloths and mops to clean a toilet to also clean a food preparation area can cause serious health hazards.

Therefore, in order to minimise the risk of infection, cleaning operatives must adopt effective infection control procedures.

In this Guide we will look at colour-coding systems and how they can be adapted to suit the workplace and incorporated within the overall cleaning regime.

Once the concept of the importance of colour-coding is fully understood by cleaning operatives and they fully appreciate how effectively it contributes to the prevention of infection, you will be well on the way to ensuring a safer working environment for all users of the building, one of the central requirements of Health and Safety legislation.

We will also look at the equipment and materials, supplied by JANGRO, that will ensure your own particular system is fully supported at all stages.

Source of bacteria

Before we look at ways of preventing the spread of bacteria and infection throughout the building, let us consider the main source of bacteria, that is, soil.

It is generally accepted that most of the soil that enters a building does so via people using the building as normal. There are other ways in which soil can enter the building and we will deal with these a little later.

Let us look at the composition of the different types of soil originating in different parts of the building to give us a better understanding of the problem. The following table will give you some understanding of the types of soil encountered throughout the building and help you appreciate the importance of soil removal in maintaining a hygienic working environment.

Area	Composition of Soil
Offices, foyers, receptions, computer rooms.	• Fumes, dust, litter and grit. • Stains and soilage relating to food, spillages, accidents, vandalism and all matter transferred by footwear.
Toilets, washrooms, hospital wards and theatres.	• Fumes, dust, litter and grit. • Stains and soilage relating to excrement, urine, blood and other body fluids. • Soil washed from the human body and potentially contaminated soil and fluids.
Food preparation areas, dining rooms, canteens.	• Fumes, dust, litter and grit. • Fats, grease, oils, starches and protein rich stains and soilage.
Industrial workshops	• Hazardous fumes, dust, litter and grit. • Oils, grease, scrap metal and wood.
Warehouses and store rooms	• Hazardous fumes, dust, litter and grit. • Oils, grease, packaging and soil relating to the specific items stored.

- All areas will have insect carcasses and pest droppings depending on the type and levels of infestation (if any).

For now, let's look at the soil which is "walked in" to the building and the way in which barrier matting can help reduce it significantly.

Soil prevention

It has been calculated that approximately 80% of the total amount of soil present within a building is brought into a building via peoples' feet. It has also been estimated that up to 90% of this soil can be prevented from entering the building by the use of an effective barrier matting system at all entrances.

We can put the problem of walked in soil into perspective by illustrating the extent to which cleaning costs are increased by dealing with it by asking you to consider the following fact:

If 100 people per day enter a building, over the course of a year approximately 25kg of soil will enter the building through an unprotected entrance. On average, it will cost between £800-£900 to remove 1kg of soil. So over the course of a year, it could cost up to £22,500 to clean it up. Simply staggering!

It is clear that barrier matting should be considered as an integral part of the general maintenance programme of the building. In summary then, let us consider the problem:

The problem

- 80% of all dirt entering a building enters via the feet.
- The cost of removing 1kg of dirt from within a building is as high as £900.
- Tracked in water can turn hard floor surfaces into skid pads and carpeted floors into reservoirs.

Therefore part of the solution will be the installation of an effective floor maintenance programme such as a barrier matting system that works.

For a matting system to work, it should:

- Be effective in removing dirt, grit and moisture from the feet passing over it.
- Be of adequate length to maximise the number of footfalls.
- Retain dirt and moisture to prevent re-tracking.
- Stay looking good even during bad weather.
- Be easy to clean so it retains its appearance.

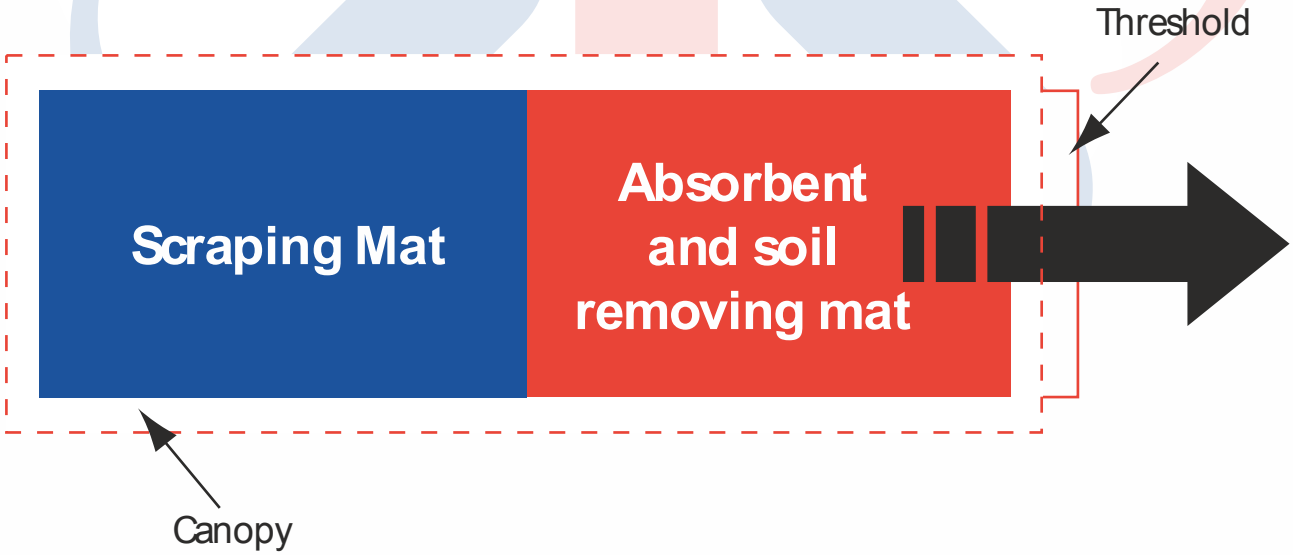
Except for very low traffic areas, the highest soil removal will be achieved by using 2 complementary types of matting i.e. Primary "scraper" matting followed by Secondary matting to remove fine dirt and moisture:

There are three methods that can be employed to provide effective protection at building entrances. These are:

(Although manufacturers of barrier matting can provide all-purpose matting that scrapes, cleans and dries feet, we will assume that a two mat system is adopted).

Approach cleaning

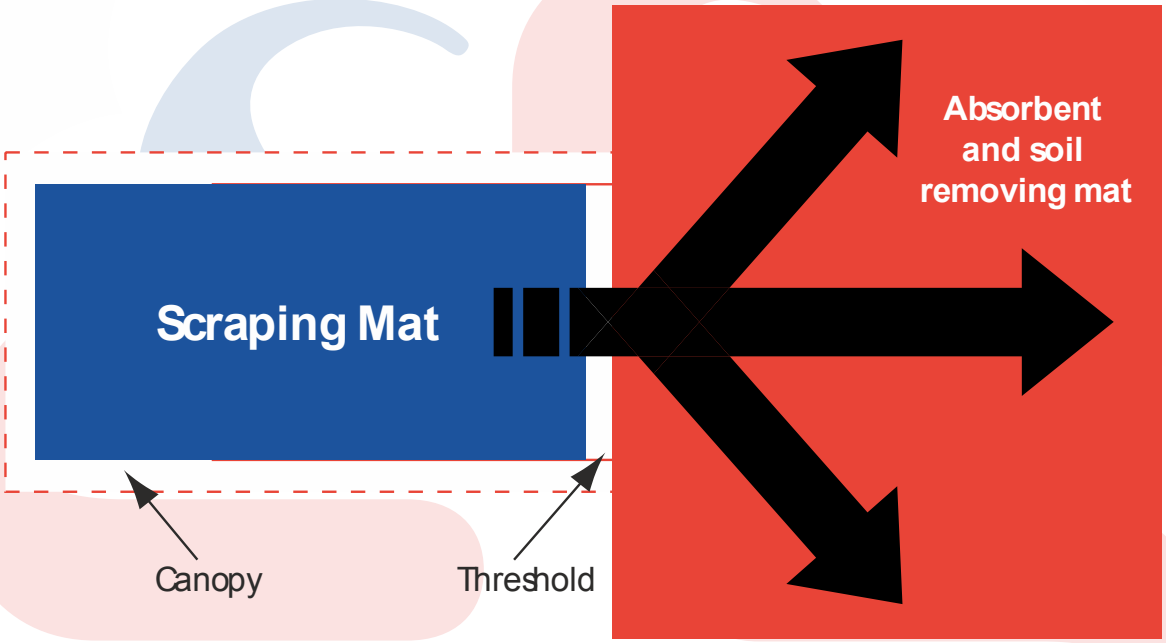
This requires a mat, or mats, capable of scraping feet, removing soil and absorbing moisture situated before the entrance to the building, preferably beneath a canopy. *(see the following diagram)*



Approach and post-entry cleaning

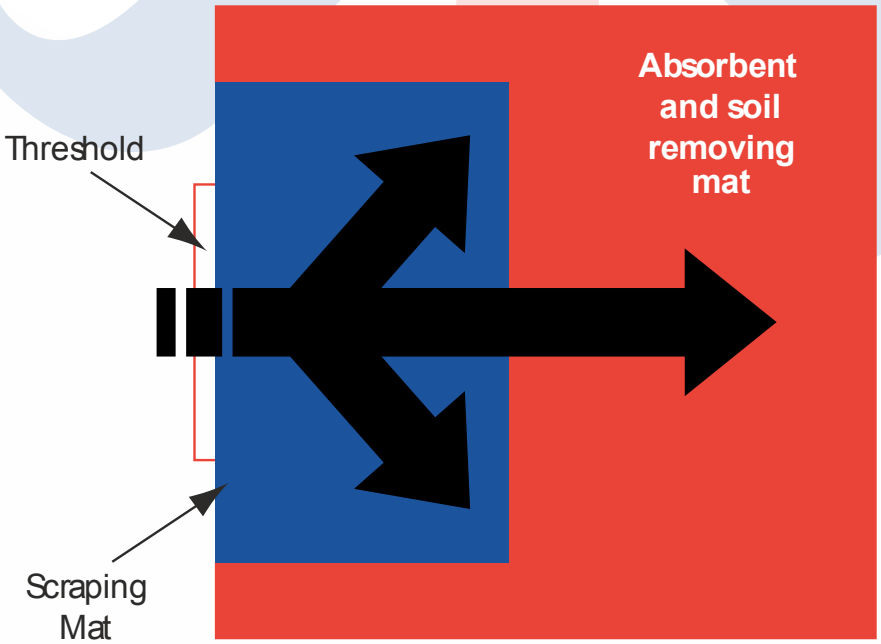
This requires the provision of protective mats to be positioned on the approach to the building and inside of the main entrance. The scraping mat should be placed on the approach, ideally beneath a canopy. Also, the provision of a ramped approach will increase the effectiveness of the mat by allowing water to run away from it naturally.

The absorbent mat should be positioned inside the building so that soil is removed from shoes on entrance. The colour of this mat is important as colours that will show up stains and traffic lanes should be avoided.



Post-entry cleaning

This system provides both scraping and absorbent mats within the building.



Matting needs throughout the building

To maximise the benefits of the barrier matting system and reduced risk of slip and trip accidents you need to match the position and allocation of mats to traffic levels in the building.

Initially, the main entrance of the building should be protected with a suitable barrier. However, you should consider the need for protecting all other minor entrances or points of access to the building.

Dimensions required

In the simplest terms no entrance matting will provide the level of dirt and moisture removal required if it is too short.

The minimum requirement of primary entrance matting should be 2 metres; this will allow the feet enough contact to effectively scrape and remove the bulk of dirt.

With secondary matting it is recommended that a minimum of 4 metres is required for effective moisture removal. Again this length will mean on average 2-3 steps with each foot, maximising moisture removal

Air-showers

Another potential route into the building for soil and bacteria is on peoples' clothes. The installation of an air-shower at the main entrance to a building will help to remove loose soil from clothing.

An air-shower produces a powerful but comfortable downward draught, that dislodges loose soil particles, forcing them toward the floor. Here they can be trapped and contained within the fibres of barrier mats, thus preventing them from entering the building.

Air-conditioning

Although air-conditioning is installed in buildings primarily to control the internal temperature, if properly maintained, they will improve the air quality throughout the building by filtering airborne dust and soil particles.

As we have already pointed out, these particles can contain harmful bacteria, which can be effectively contained with effective air-conditioning.

HEPA Filters

High Efficiency Particulate Air filters, or HEPA filters can be fitted to vacuum cleaners to dramatically increase their ability to filter exhaust air, thus reducing the amount of dust being emitted during cleaning.

HEPA filters collect the airborne dust and debris, including dust mites, rather than re-circulating the air around the room as an ionizer does. Many filtration systems that don't have HEPA filters leave the toxic elements trapped in the room and eventually they become airborne again. The idea is to remove the dust entirely, not simply move it around.

In order to be certified as a HEPA filter, it must capture a minimum of 99.97% of foreign particles at 0.3 microns in size. Normally they would be supplied in areas where there are people who are hyper-sensitive, allergic or susceptible to infection from certain airborne particles or in areas where the presence of dust can cause damage to machinery i.e. computer suites.

Another benefit of using HEPA filters is that they are capable of removing potentially harmful V.O.C.'s (Volatile Organic Compounds) which are gases that come from household chemicals and synthetic materials.

So you can understand the merit of vacuum cleaners, which incorporate HEPA filters and how they increase the vacuum cleaners overall efficiency.

Efficient waste disposal

The key to preventing the spread of infection effectively is prompt and efficient removal of waste. All companies charged with handling waste, must develop rigorous systems that ensure that waste is disposed of promptly, effectively and correctly.

Effective waste disposal procedures will go a long way to reducing the risks associated with the spread of bacteria and infection in the following ways:

- Buildings will be less prone to pest infestation and disturbance.
- Harmful pathogens will be promptly removed and stopped from multiplying.
- Effective disposal of hazardous waste will significantly reduce the risk of infection being spread from contaminated items.
- It will encourage good housekeeping by other users of the building.

Other control methods

Finally, there a number of other ways soil can be prevented from entering buildings.

Examples of these are;

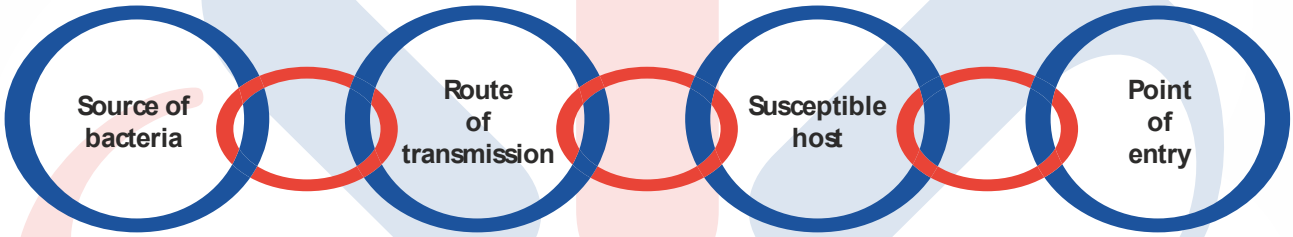
- Prohibiting smoking
- Provision of litter bins outside building entrances
- Provision of ashtrays (if smoking is allowed)
- Controlling access to the building
- Issuing protective clothing, such as caps, gowns, overshoes and overalls which must be worn or removed before entering certain areas of the building.

The Chain of Infection

The implementation of successful infection control procedures relies heavily on all those involved in their implementation and delivery having a sound understanding of the basic concepts of infection and how it occurs.

Over the years, training relating to infection control has developed significantly. From this development, the use of the "Chain of Infection" diagram has become the standard way of describing the sequence of events necessary for an infection to occur, in its simplest terms:

The Chain of Infection



If one or more of these links can be broken, the development of infection can at worst be interrupted and at best avoided completely. Therefore, the aim of any effective infection control procedure is to break one or more of the links in the chain.

In a cleaning setting, this is achieved by introducing systems that incorporate the use of colour-coded equipment along with specialist equipment used to react in situations where there is the serious risk of infection e.g. discarded hypodermic syringes.

Let us look at the links in the chain in more detail.

Sources of bacteria

Bacteria or other harmful micro-organisms originate from a specific source. There 3 areas from where bacteria can originate. These are:

Endogenous sources - being produced and developed within living organisms i.e. organs and deep tissues.

Exogenous sources - being produced and developed on the surface of living organisms i.e. on the skin, hair etc.

Environmental sources - being produced and developed in the atmosphere and on the surfaces within the working environment.

It is important to note that not all bacteria are capable of causing harmful infections; those that do are called "pathogens" and they require the correct conditions in which to breed and multiply.

These conditions are:

- That the source of infection contains microbes in a fully virulent (aggressive) state and in sufficient numbers to cause infection.
- That the microbe is present in areas where there is a plentiful supply of food. Microbes require water or protein containing body fluids to survive and multiply.

It is difficult, if not impossible, to accurately identify the risks involved with specific body fluids. Therefore, it is considered good practice to treat all waste that could be considered to contain bacteria as potentially hazardous in terms of their ability to cause infection. Therefore, effective infection control procedures will significantly reduce the risk of transmission.

Also, certain risk factors can increase the likelihood of the transmission of bacteria and risk assessments should be undertaken to identify these risks within the workplace. Examples of these would be:

- Diarrhoea and incontinence (particularly in kitchens)
- The incidence of items contaminated with blood
- Uncovered wounds
- Employees with viral infections

Routes of transmission

Transmission of bacteria can be achieved in a number of ways including:

1. Contact

Direct - Pathogens can be transmitted with direct contact with body fluids or items contaminated with it e.g. tissues, disposable nappies, incontinence pads/bags etc.

Indirect - This is probably the most significant route for the spread of harmful bacteria and include:

- Other people, via unprotected hands
- Animals such as rats, pigeons, domestic pets etc via droppings, hairs and other deposits
- Contaminated water
- Furniture, fixtures and fittings including bedding, upholstery, contact surfaces, tap heads, door handles etc.
- Contaminated food

2. Airborne

Pathogens themselves are incapable of propelling themselves through the air. As such, they rely on airborne particles for transmission via the air. Transmission is achieved in the following ways:

Respiratory droplets - coughing and sneezing can transmit large droplets infected with pathogens capable of causing common cold and influenza-like infections.

Dust - contains dead skin cells that can contain harmful bacteria and spores.

Water - transmission can occur in small droplets from infected sources e.g. legionella via untreated shower heads.

3. Insects

Insects, or anthropoids, include flies, bugs, ticks, lice, cockroaches and fleas. Insect-born pathogens are normally transmitted by sucking, biting, burrowing or via droppings. Diseases associated with insects include salmonella.

(The problems associated with all building pests are covered thoroughly in the Biohazards Guide).

Susceptible host

The susceptibility to infection differs significantly from person to person. Generally, however, susceptibility to infections increases in people at the extremes of the age spectrum. That is why extra care should be taken when cleaning buildings primarily used by young children and elderly people. Also, people already suffering from the effects of a disease or infection, or recovering from it have an increased susceptibility to infections.

Taking all of this into consideration it becomes clear that infection control measures in nurseries, elderly care environments and clinical premises are critical in protecting users of the building from infections and diseases.

Points of entry

In order for the body to become adversely affected by bacteria and viruses, it must come into contact with them. There are a number of ways this can happen:

Inhalation

Airborne particles contaminated with bacteria can be breathed in causing infections. Dry cleaning processes such as dusting and vacuuming can increase the amount of particles in the air and care should be taken by operatives to control the amount of dust disturbed and allowed to become airborne. For instance, when dusting, surfaces can be damped down with water or furniture polish and vacuum cleaner filters should be cleaned regularly.

Ingestion

Contaminated items and surfaces can be touched and the bacteria inadvertently transferred to the mouth by touching the mouth and lips. This way the bacteria is ingested and can cause problems with the digestive system leading to stomach upsets, vomiting, diarrhoea and other serious infections.

Contact with broken and unbroken skin.

If an operative has an open, undressed wound, bacteria will enter the body if it is allowed contact with it. Therefore, all open wounds must be covered with waterproof dressings before cleaning can commence.

Also, if the operative has an intolerance to certain organisms in the environment and the intolerance manifests itself in the form of rashes with areas of broken skin (i.e. eczema), these rashes can become further infected and must be suitably dressed. It should also be pointed out that bacteria in contact with unbroken skin can still lead to an infection.

The way in which we prevent certain harmful bacteria entering or coming into contact with the body is by the issue of Personal Protective Equipment (PPE). In most cases PPE can be used to protect the respiratory and gastro-intestinal tracts, as well as the skin, especially the hands, which are the most significant parts of the body susceptible to infection by viruses, bacteria and certain fungi.

Conditions for micro-organism growth

Now that we have an understanding of the way in which harmful bacteria can cause infections, we must consider the conditions that affect the ability of these micro-organisms to survive and multiply.

In general terms there are four main factors that directly influence the growth of bacteria.

These are:

1. Temperature

All bacteria, like most living organisms, thrive if the temperature is just right i.e. not too warm and not too cold. The following chart indicates the affects on bacteria growth through a range of temperatures:

Temperature (ºC)	Effect on growth
-18 to 0°C	Deep freezes bacteria, some strains will die, others will lie dormant, unable to multiply.
0 to 10°C	Inhibits growth and allows for effective control.
20 to 45°C	Rapid growth.
37°C	Optimum temperature for growth.
63 to 115°C	Unable to survive, reducing numbers to an acceptable level.
Above 115°C	Destroys all living organisms.

As you can see from the chart, extremes of temperature allow bacteria to be controlled effectively and they will grow rapidly within the mid-range.

2. Moisture

Again, like all living things, bacteria require water or moisture to survive. High levels of humidity will encourage bacteria growth.

3. Time

The longer bacteria are allowed to dwell on a surface without disinfection, the more they will continue to grow in numbers, increasing the risk of infection.

4. Food

Certain foods are more susceptible to infection than others. For instance, soups, gravies, meat, eggs, milk and dishes made from them are considered to be high-risk foods in terms of contamination. Also, the more food is handled or reheated will increase the likelihood of contamination.

Foods that are less likely to become contaminated are those with high levels of salt and sugar or products contained in vinegar.

Nevertheless, all foodstuffs are potential sources of bacteria contamination and care should be taken that all are handled and stored safely and correctly. Waste foods should be disposed of immediately to remove the risk of contamination.

Hand hygiene

Good hand hygiene is the primary, most important method of preventing cross contamination and the spread of bacteria. This is particularly important when carrying out cleaning in food preparation areas, care homes, schools and hospitals and you should never underestimate the importance of hygiene in the home.

It is normal practice throughout the cleaning and catering industries to provide protective gloves to staff when carrying out most tasks. What should not be overlooked is the fact that hands should be thoroughly cleaned before and after gloves are worn.

Why is hand hygiene so important?

Effective hand washing removes or destroys harmful bacteria picked up by the hands and also reduces the amount of bacteria that is normally present on the skin. The aim of good hand washing practices is to ensure your own protection and prevent the transfer of any harmful bacteria to other people. The important thing to remember is that good technique is more important than the type of hand cleanser used.

Remember ALWAYS wash your hands whenever:

- you have had contact with any bodily fluids
- you have used or cleaned the toilet
- you have handled or cleaned up after any animals
- you have sneezed, blown or wiped your nose
- you have covered your mouth with your hand while coughing or sneezing
- before eating, handling and preparing foods
- your hands feel or look dirty

When considering hand washing techniques, the following points should be included and adopted by all staff:

1. Remove any jewellery from the hands and wrists to allow for effective cleaning.

2. Ensure any cuts and abrasions are covered using a clean waterproof plaster and that the plaster is properly secured.

3. Always wet the hands before applying hand cleanser.

4. Apply enough cleanser to ensure it produces a good, thick lather.

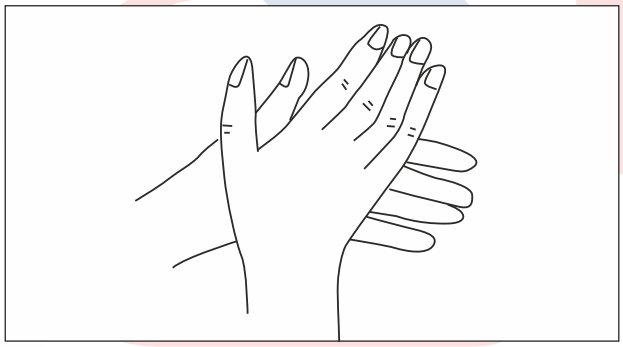
5. Ensure the lather covers all areas of the hands and wrists, paying particular attention to the areas between fingers and finger nails.

6. Rinse of all traces of lather under running water, or with fresh, clean warm water in a bowl or wash basin.

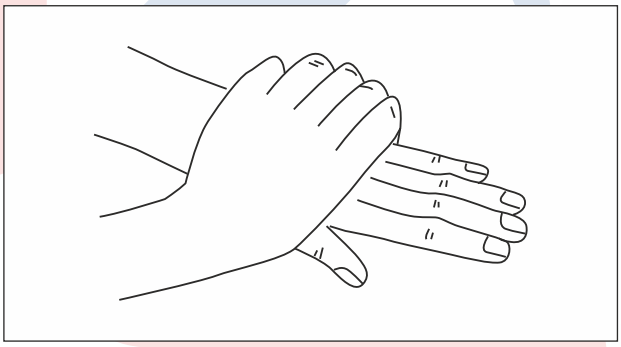
7. Dry hands and wrists thoroughly using clean, dry paper towelling. This will prevent dry or chapped skin which can harbour bacteria and damp hands that will encourage bacteria growth.

8. Avoid touching the bin when disposing of paper towelling.

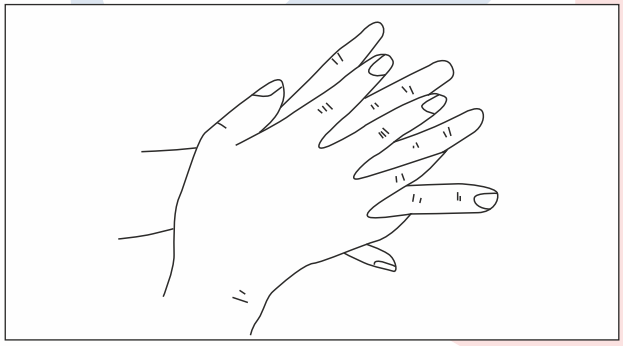
The correct hand-washing technique



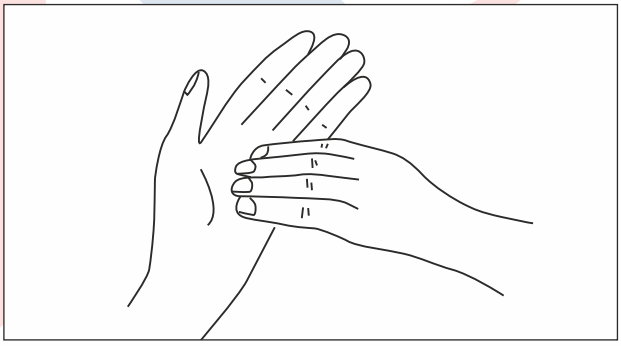
Palm to palm



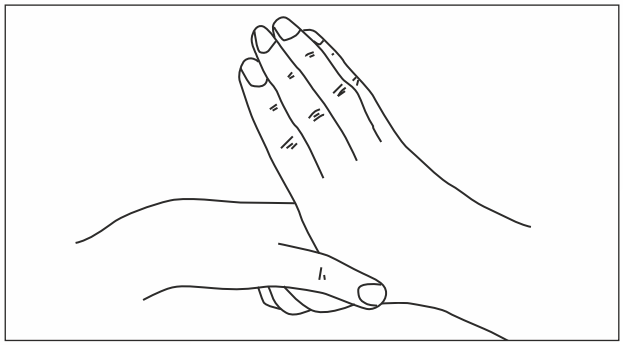
Right palm over the back of the
left hand and vice versa



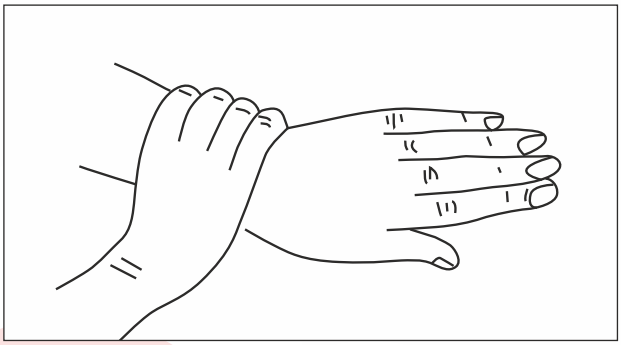
Intertwine the fingers of the right hand over the left and vice versa



Rotational rubbing, backwards and forwards with clasped fingers of right hand in the left palm. Change hands and repeat



Rotational rubbing of right thumb clasped in the left palm, change hands and repeat



Grip the left wrist and work cleanser into the skin. Do the same with the right wrist

What hand cleanser should I use?

Try to avoid using tablet soap. If you must use it, make sure that the soap is cleaned and dried and changed regularly. Also, soap dishes that retain fluid should not be used under any circumstances.

Liquid hand soap from a dispenser is the best form of cleaner and JANGRO provide a vast range from which customers can select the product that best suits their needs. Your local JANGRO representative will provide further advice on selecting the correct product and installation of dispensers.

What other steps should be considered to maintain good hygiene?

The regular application of hand moisturising cream will help prevent hands becoming chapped. Staff should be instructed to wear all personal protective equipment provided to protect their hands.

Finally, any cuts or abrasions to the hands should be covered with a clean water-proof dressing, which should be replaced regularly until fully healed.

Disinfection and disinfectants

All germs, bacteria and viruses are, in most cases, invisible to the naked eye. Although we cannot see them, we all know they are there. We also know that if they are not removed or destroyed effectively, they will multiply or mutate, increasing the likelihood of an outbreak of infection.

Therefore, it is important that the products that are utilised as part of the overall cleaning regime are effective. We must also ensure that the products that are used do not cause damage to the surfaces and materials that make up the physical washroom environment.

Some products that can be utilised to kill germs are made of highly concentrated and strong acids and alkalis and will destroy all micro-organisms effectively. However, these will invariably damage surfaces and would be considered far too dangerous for general use by cleaning operatives.

As a result, cleaning products have been developed that contain specific chemical disinfectants in varying concentrations.

The most common types are:

- Halogens
- Phenolics
- Quaternary Ammonium Compounds (QUATS or QAC's)

Let us look at each of these types of disinfectants in more detail.

Halogens

Halogens or Halogenated disinfectants take a number of forms. The most common of which is chlorine based bleach or sodium hypochlorite to give its proper name. Originally discovered over 200 years ago, it is still in widespread use today.

Chlorine bleaches are effective disinfectants but must be handled with great care. They should never be mixed with other products such as toilet cleaners. When this is done, chlorine gas is released which can prove fatal. In fact, to give you an idea of just how dangerous it is, it was used as 'mustard' gas in the First World War!

In addition to this, it must be remembered that bleach does not clean and should never be used as a cleaning agent. Cleaning operatives the world over will swear by bleach and its ability to clean... unfortunately for them, they are all wrong!

On a soiled surface, the hypochlorite present within the solution will act on the soil first, leaving very little to deal with germ killing. For this reason bleach must be used in conjunction with a cleaning agent, or be incorporated within a cleaning solution that carries out the cleaning function. However, these types of solutions are difficult to formulate and manufacture. All of these considerations have led to a gradual reduction in the overall use of bleach throughout the cleaning industry. In fact, the development of cleaners with bactericidal and disinfectant properties have rendered the use of bleach in many areas redundant.

When produced in powder form, the chlorine used is obtained from sodium dichloroiocynurate, which produces sodium hypochlorite when dissolved in water.

Chlorinated isocyanurates, developed in the 1950's, provide a more efficient and stable, solid source of chlorine. They are used in swimming pools and some floor cleaners, in detergents for dishwashing machines, and in toilet rim and cistern blocks. They are also used in hospitals to absorb and disinfect spills of blood and body fluids, which may be very dangerous if they contain HIV, hepatitis, or similar viruses.

Most often, the bactericidal effect of active chlorine is best in a neutral or weakly acidic condition (pH 5 to pH 7), but the chlorinated alkaline cleaners also have an excellent bactericidal effect against all groups of microbes. Many tests, according to various methods, have proved that chlorine renders a very fast kill on viruses, bacteria, yeasts and moulds. The activity against spore forming bacteria is slightly slower.

The use of chlorine-based disinfectants on stainless steel and aluminium is not recommended as they can corrode the surfaces during cleaning.

Advantages of Chlorine-based sanitisers:

1. They are unaffected by hard water limescales.
2. They are non-filming.
3. They can be used at cool water temperatures without affecting their activity.

Disadvantages include:

1. They precipitate when used in iron-laden water.
2. They have a short residual effect after disinfecting.

Generally, if chlorine is used for sanitising equipment, the equipment should be used within one hour of the disinfecting procedure being carried out.

Chlorine bleach is an oxidising agent. Another oxidising disinfectant is hydrogen peroxide. This is also a bleach. However, it is less powerful and kills fewer types of germs than hypochlorite.

Phenolics

Phenolic based disinfectants tend to be associated with the more traditional varieties such as pine disinfectants. The very first types of disinfectant contained pine oil, which contains phenols. This explains the almost universal association with the smell of pine with disinfection.

The performance and effectiveness of phenolicsis measured using the Rideal-Walker (RW) coefficient. Without over complicating matters, it measures the germ-killing capability of a phenolic-based disinfectant against that of carbolic acid, which is given a RW coefficient of 1. Given that other types of disinfectant cannot be measured using this method, comparison of their performance with those not containing phenolics is difficult.

Quaternary Ammonium Compounds (Quats or QAC's)

Modern commercial and domestic disinfectants contain specific kinds of surfactants known as quaternary ammonium compounds. These are more commonly referred to as "quats" or "QACS" Quats are more commonly used as they are highly effective at dealing with a wide range of micro-organisms and have little or no odour. In addition to this they will remain active on the surface being treated for some time after application.

Also, they can be more easily incorporated within cleaning compounds and are generally kinder to the surfaces being treated than other kinds of disinfectant.

How Quats work

Like all living things, bacteria are made up of groups of individual cells. In general terms, cells are made up of lipids (fats), proteins, a cell membrane and enzymes. The aim of an effective disinfectant is to kill the cell or micro-organism which it achieves by destroying the structure or functionality of any of these component parts.

The cell walls surrounding the cell carry a negative electrical charge while quats hold a positive charge and are attracted to the micro-organism. As the quat itself is a surfactant it gradually dissolves the lipids in the cell wall following contact with it. The chemical properties of the quat allow it to break through the wall of the cell and attack the enzymes and proteins within the cell, changing the ways in which they act. This leads to the chemical bonds within the coiled-up protein being broken and causing it to unravel. These bonds can be broken with the use of heat or by chemical methods; either way, the cell is destroyed.

It is important to note that viruses do not have a lipid coating but they can be destroyed by the chemical effect of quats.

Advantages of Quats:

1. They are stable and have a long shelf-life. 2. They are active against a wide range of micro-organisms.
3. They form a bacteriostatic film.
4. They are non-corrosive and non-irritating to skin.
5. They are stable in the presence of organic matter.
6. They remain stable when subjected to temperature changes.
7. They have good penetration qualities.
8. When they are combined with non-ionic wetting agents, they form good detergent sanitisers.

Disadvantages of Quats:

1. They are relatively expensive.
2. They are incompatible with common anionic detergent components.
3. They are slow to dissipate and can form residues.
4. Their germicidal efficiency is varied and selective.
5. They tend to foam when applied mechanically.

Amphoteric disinfectants

These are used almost entirely within the food and pharmaceutical industries. They are particularly effective in dealing with fungi, yeast and viruses but have no effect against bacterial spores.

They are compatible with a wide range of detergents and as such they can be incorporated with cleaning solutions in the same way as quats. However, they are less affected by water-hardness and can be easily rinsed from surfaces. Again, like other disinfectants described in this section, they can only be applied to previously cleaned surfaces as they can be rendered ineffective when in contact with soil.

Colour coding

Now that we have thoroughly considered the importance of effective infection control measures, we are now ready to examine the implementation of an effective colour-coded cleaning regime.

The first thing to consider is that there is no legislative requirement to operate a colour-coded cleaning regime. However, it is generally considered good practice to adopt such a scheme when cleaning commercial premises.

As a result, and given the importance afforded to infection control, the cleaning industry has developed a widely used colour-coding system for all relevant cleaning equipment which should be used in the areas identified by the various colours used. There are four colours used and these are:

BLUE

Generally used when cleaning areas are considered to present a low risk of infection. All equipment can be used to clean classrooms, corridors, offices, receptions etc.

GREEN

All kitchen areas within an establishment should use green equipment. (However, in a commercial kitchen, there are usually toilets, offices, storerooms, locker rooms and changing areas - the other relevant colours should still be adopted with the confines of the kitchen in areas where food is not prepared)

RED

To be used in areas considered to be a high risk in relation to the spread of infection, notably sanitary fittings within toilets, washrooms, wet changing areas, showers etc, including all associated fixtures and fittings.

YELLOW

Should be used in washroom areas for cleaning all fixtures, fittings and surfaces that are not considered critical in terms of infection. These include worktops, doors, pipework, towel dispensers, sinks and basins.

Although some companies will adopt systems that incorporate other colours, it is extremely important that once the colour has been designated to particular area, that it is strictly adhered to at all times.

Equipment used in the colour coding regime

Ideally all equipment within the different areas should be suitably colour coded. JANGRO manufacture and distribute all of the equipment needed to support such cleaning regimes, including the following items:

- Cleaning cloths
- Dish cloths
- Disposable cloths
- Cleaning sponges
- Abrasive cleaning pads
- Mop heads
- Mop handles
- Wringer buckets
- Pales
- Brooms
- Hand brushes
- Dust pans
- Lobby brushes
- Dish brushes
- Protective neoprene gloves

All of these items can be incorporated in any regime and are identified in our Safe Working Procedure Guide.

Full descriptions of all of the items mentioned above can be found in the Introduction to Equipment Guide.

Equipment cleaning

Ideally, items used to clean a particular area should be securely stored within that area in a room that allows operatives to wash their equipment after use. However, in practice, this is not always possible, meaning that the way in which the equipment is cleaned and stored within a communal room is critical to ensuring that the items do not contaminate one another.

Another important thing to remember is that when different areas are cleaned, the operative should change gloves when changing areas. This will ensure that bacteria is not allowed to contaminate equipment used in other areas during the act of cleaning.

Care must be taken when cleaning equipment and operatives should ensure that items are not allowed to touch one another when drying or in general storage. Let us look at the way this should be approached in relation to the different items:

Cleaning cloths, buckets and pails

All reusable cleaning cloths of different colours should be cleaned and stored separately. After each use, the cloths should remain in the similarly coloured bucket or bowl and taken to the sluice separately. Once the cloths and bucket are at the sluice, the waste solution should be washed away and the inside of the bucket or bowl should be cleaned using the cloths and thoroughly rinsed using clean running water from the tap.

A separate bucket containing a solution of water and bactericidal cleaner should be prepared and used to thoroughly clean all cloths. The cloths should then be rinsed thoroughly using clean running water and wrung out well. They should then be hung to air dry in a designated area within the sluice room on a line or hook.

The bactericidal solution should then be disposed of, the bucket or bowl cleaned and a fresh solution prepared to clean cloths of another colour.

Scrubbing brushes

The same process as used for cleaning cloths should be adopted.

Mops

Like cleaning cloths all mops should be thoroughly cleaned. After each use they should be thoroughly rinsed and wrung out. The wringer buckets should then rinsed clean. A solution of warm water and bactericidal cleaner can be prepared in the sluice and the mops thoroughly cleaned. They should be rinsed thoroughly and wrung out well. They should then be left to air dry with the head up in a designated area of the store room.

The process should be repeated for each different coloured mop cleaned.

Cleaning sponges and abrasive pads

All cleaning sponges of the same colour should be rinsed and then placed in a bowl containing a solution of warm water and bactericidal cleaner and washed thoroughly, making sure that the solution is passed through the cellular structure numerous times. They should then be squeezed dry and left to air dry in a designated area of the store room.

Protective neoprene gloves

After washing the associated items, the gloves should be removed and washed thoroughly both inside and out. They should then be pulled inside out and left to air dry.

It should be pointed out that different items of equipment of the same colour can be stored in the same area of the storeroom. However, care should be taken to ensure that all items, once used are not allowed to come into contact with other items until they are disposed of

Further information

For information and guidance on effective infection control, contact your local Environmental Health Office. Alternatively, your local Jangro supplier will be able to assist you in the development of effective infection control procedures and offer you comprehensive advice on the correct Jangro products to use.

The following table can be found in the Appendices section of the manual:

Common disease causing bacteria Appendix i

Common disease causing bacteria

Appendix i

Micro-organism and typical effects	Source	Method of transmission
Staphylococcus Aureus *associated with:* • food poisoning • nose and throat infections • open wound infections	• Mucous membranes and skin of animals and humans.	• Touching the nose and mouth of infected individuals. • Contact with infected skin and puss from boils, rashes and other conditions. • Contact with infected wounds. • Transferred from raw to cooked foods via hands and infected catering equipment.
E.Coli *associated with:* • food poisoning • diarrhoea • bladder infections • gastro intestinal disorders	• Found in the intestines of humans and animals. The bacteria has many strains, some of which cause infections and disease. • Foul water and sewage.	• Transferred from raw to cooked foods via hands and infected catering equipment. • Infrequent changing of cleaning water or allowed to stand for long periods before being used. • Pests, especially flies can transfer the bacteria from infected excrement to contact surfaces and food.
Shigella Sonnei *associated with:* • dysentry	• Found in human intestines	• Failing to wash hands after using the toilet. • Pests, especially flies can transfer the bacteria from infected excrement to contact surfaces and food. • Contaminated toilet contact surfaces.
Salmonella group *associated with:* • food poisoning • typhoid • paratyphoid	• Found in human and animal intestines. • Foul water and sewage. • Poultry, shell fish, meat and dairy products.	• Introduced into buildings via infected foodstuffs. • Failing to wash hands after using the toilet. • Water polluted by sewage. • Transferred from raw to cooked foods via hands and infected catering equipment. • Introduced into buildings by birds, insects, vermin and domestic pets.
Pseudomonas Aeruginosa *associated with:* • wound infections	• Soil. • Foul water and sewage.	• Infrequent changing of cleaning water or allowed to stand for long periods before being used. • Dirty water used in cleaning can deposit the bacteria onto surfaces being cleaned.
Clostridium Perfringens *associated with:* • food poisoning • wound infections	• Found in human and animal intestines. • Soil • Flies • Meat and dairy products	• Introduced into buildings via infected foodstuffs. • Transferred from raw to cooked foods via hands and infected catering equipment. • Failing to wash hands after using the toilet. • Introduced into building via soil e.g. root vegetables.