THE FUNDAMENTALS OF

HEALTHCARE PEST CONTROL

An Authoritative Guide for Environmental Services Professionals, Healthcare Facility Managers and Healthcare Office Managers



PEST CONTROL DOWN TO A SCIENCE."

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PEST CONTROL MATTERS TO PATIENT SAFETY

The Canadian Patient Safety Institute (CPSI) estimates that 220,000 Canadians contract healthcare-associated infections each year¹, despite the fact that facilities take extensive measures to lower their infection rates. You likely follow clear hygiene policies, practice ongoing surveillance and implement strict cleaning protocols. But what if we told you there is an incredibly common contaminant that is often overlooked?

Virtually every healthcare facility in Canada has faced a pest problem, if not on multiple occasions. And pests are well-known carriers of diseases that they can transfer to contaminate surfaces or transmit directly to humans.

We wrote this guide to help healthcare professionals like you - no matter what kind of facility you may work in - diagnose potentially hazardous pest infestations faster and help stop pests from infesting in the first place. Let us walk you through a few key steps to help keep common carriers of disease out of our healthcare facilities. As they say, an ounce of prevention is worth a pound of cure.

Let's get started.

1 Canadian Patient Safety Institute. http://www.patientsafetyinstitute.ca/en/Topic/Pages/Healthcare-Associated-Infections-(HAI).aspx



FOR BETTER OUTCOMES, FOCUS ON THE FOUR S's

Given the sensitive nature of healthcare facilities, a non-invasive approach to pests is essential. The widely adopted best practice is called Integrated Pest Management, or IPM. Put simply, IPM focuses on an ongoing process of risk assessment, routine inspections, non-chemical treatments, sanitation and facility maintenance.

IPM can be guite complex or surprisingly simple, depending on who you ask. This guide will focus on four very simple IPM techniques to help you protect your patients and staff from the most common pests and the germs they carry:



1. SETTINGS

Where to look for pests in your kind of facility.



3. SHUTOUT

How to identify and close off entry points.



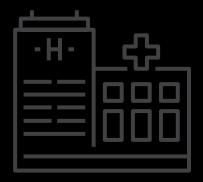
2. SYMPTOMS

Telltale signs of common pests.



4. SOLUTION

Tips for an ongoing, proactive solution.



SETTINGS

Where Pests Problems Tend to Start in Facilities Like Yours

Healthcare facilities, in general, face many challenges when it comes to sanitation, like being high-traffic areas with limited space that are susceptible to contamination. But each unique environment brings its own set of challenges. From assisted living facilities to urgent care centres, do you know where the pest pain points are in your operation?

HOSPITALS

Hospitals are a ripe target for pests. Multiple exterior doors – including large loading docks – make for relatively easy access. Medical personnel, patients, visitors and staff constantly moving from one area to another can increase the risk of spreading a potential pest problem. With so much foot traffic from the outside, pests can "hitchhike" their way into hospitals on patients' and visitors' clothing or belongings or in supplies, shipments and equipment. Once inside, they often find the three things they need most to survive and thrive: food sources, water sources and moderate temperatures.





There are various pests that pose a risk to assisted living facilities and nursing homes, including:



ANTS

Pharaoh ants are one of the most difficult ants to control indoors. In hospitals, they are known to contaminate sterile equipment and rooms and transmit diseases like Salmonella, Staphylococcus, Clostridium and Streptococcus.



BFD BUGS

The nature of patients and treatments involve the ongoing movement of beds, bedding and clothing. This enables bed bugs to easily move throughout the entire hospital in a relatively short amount of time.



FI IFS

Hospital waste, especially from foodservice areas, can attract them. It's important that sanitary procedures are followed, from the proper disposal of organic waste to maintenance and sanitization of dumpsters and compactors.



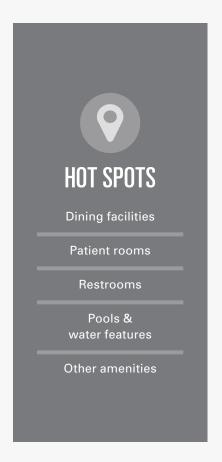
RATS & MICE

These pests are very important to control due to the types of diseases they can carry (both through their own urine or feces and via parasites such as mites or fleas on their bodies).

ASSISTED LIVING & NURSING HOMES

A very high level of cleanliness and sterility is required when operating an assisted living facility or nursing home – and it's demanded not just from your patients but also from their families. The best way to protect your facility is preventive maintenance, which will help you avoid a pest problem in the first place. Pests like cockroaches can carry diseases or spread bacteria, ultimately endangering the health and safety of your residents.





There are various pests that pose a risk to assisted living facilities and nursing homes, including:



ANTS & FLIFS

Residents have access to food and drink in their rooms, which can create ideal conditions for ants and flies. Especially if food is brought in by family members (without your knowledge), crumbs, spills and expired items can become a pest's next meal.



BFD BUGS

Residents typically bring their belongings into facilities, which can actually transfer these pests to your property. Elderly adults tend to have fewer reactions to bites, so an introduction may go unchecked in some cases.



GRAIN BEFTLES & PANTRY MOTHS

Stored product pests like these can infest food that is left for a long time in the kitchenette area of typical resident room.



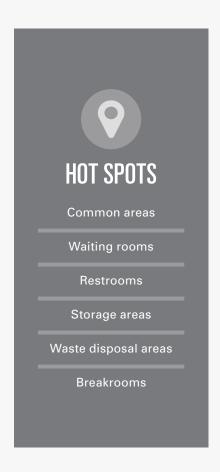
MOSOUITOES

They not only bite patients and cause allergic reactions at times, but also carry diseases like West Nile virus. Often, the elderly tend to have a lower resistance to these infections and have more difficulty recovering.

PHYSICIANS' OFFICES

There's no question – keeping pests away from your patients, visitors, staff and physicians is a top priority. In physicians' offices, these pests could pose a serious threat, as they can carry disease-causing bacteria to otherwise sterile areas of an office. From doctors' offices to dental offices, it's important that you use IPM to both help prevent pests and help manage them if they do find their way inside.





Pests that can plague physicians' offices include:



ANTS

Ants are resilient pests and some of the most difficult to control. Their colonies can grow to have massive populations if left untreated.



COCKROACHES

Many physicians' offices have a kitchen or breakroom where employees can prepare and eat food on a daily basis. These areas can be a hotbed for pests.



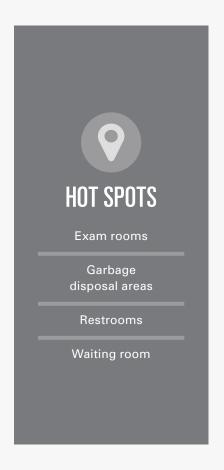
RATS & MICF

They not only can carry diseases but also can transmit disease through their fecal matter and urine.

URGENT CARE CENTRES

Large numbers of patients come in and out of your urgent care centre each day, needing to be seen for a wide range of medical reasons. Pest-related risk factors for urgent care centres are directly related to the high traffic and number of open entry points into the facility. Notably, bed bugs and lice are found at many urgent care facilities because they hitchhike in on patients, their personal belongings or their clothing. Other potential disease-spreading pests such as flies and birds often make their way into the facility through open doors or windows.





Urgent care centres can be prone to pest infestations such as:



BED BUGS

Similar to hospitals, urgent care centres treat many patients daily and often have soft goods in examination rooms. Bed bugs can easily move throughout the centre in a short time.



FLIES

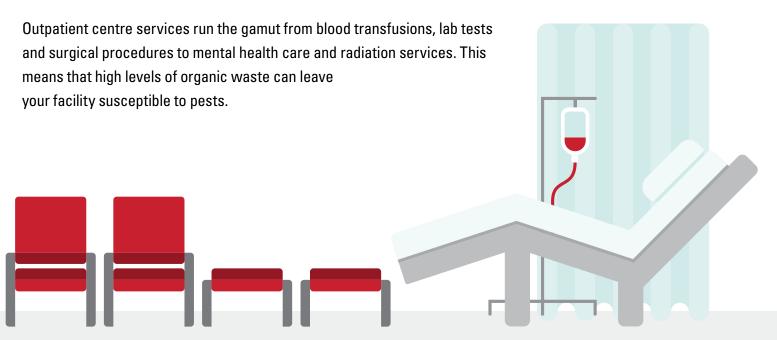
There are many fly species (e.g. house, blow, fruit and more) that can affect urgent care facilities. House flies are known to carry twice as many pathogens as cockroaches, so helping manage their activity is essential.

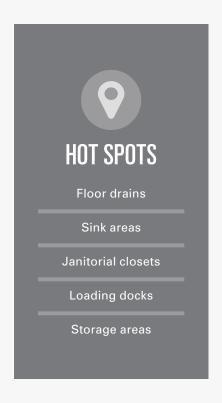


LICE

These pests are parasites that rely on hosts like humans to live, and they spread through direct personal contact or clothing and other linens. The most common types of lice known to affect humans are body lice (which can spread disease), bird lice and head lice.

OUTPATIENT CENTRES





Outpatient centres can be prone to pest infestations such as:



ANTS

These social insects can be a major nuisance given their tendency to infest in large numbers. They can also spread bacteria like *Salmonella*.



COCKROACHES

These pests are most likely to be found in break rooms, laundry rooms, janitorial closets, foodservice and sink areas.



FLIES

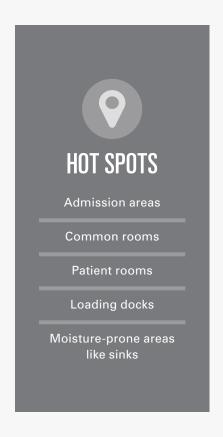
Proven to carry more than 100 disease-causing germs, flies can quickly find their way inside through entryways.

REHABILITATION HOSPITALS



Long-term care facilities like rehabilitation hospitals require special attention when it comes to helping maintain a pest-free space. These facilities have numerous entrances, small spaces and a constant influx of people, including visitors and vendors.

Some pests like cockroaches and rodents pose a variety of health threats because they can spread bacteria and contaminate surfaces, supplies and equipment. It's important to inspect deliveries, including flowers and plants, as they may harbour insects like fungus gnats. When patients arrive at the facility with their belongings, they may also be bringing in pests like bed bugs from home.



Rehab hospitals can be prone to pest infestations such as:



BFD BUGS

Patients and visitors at long-term care facilities like these often bring personal belongings that can introduce bed bugs to your facility. Bed bugs reproduce quickly, so an introduction can easily turn into an infestation.



COCKROACHES

Cockroaches are a major health concern because they can spread disease, contaminate food and trigger allergies and asthma.



RATS & MICF

Rats and mice can fit into your facility through holes the size of a quarter and the size of a dime, respectively. They can cause extensive damage to your building and pose health risks to your patients.



SYMPTOMS

What You *See* Can Help Tell You What You *Have*

Now that you know *where* to look first in facilities like yours and why, it's important to know *what to look for.* Here are just a few of the telltale signs that may indicate a pest infestation is in progress.

YOU MAY HAVE:



Ink-coloured stains or bed bug bodies



BFD BUGS

After bed bugs feed, they often leave behind fecal smears in their harbourage areas, which may resemble ink-coloured stains on mattresses, bedding or other soft furniture. They also cast off their skins as they grow, so those may be left behind along with the bodies of any bed bugs that have died.



Webs



SPIDERS

The shapes and sizes of webs can vary. But if you see webs, your insect issue spans further than spiders. It means the spiders have a robust food source nearby (i.e., more insects). And remember, not all spiders spin webs!



Nests



STINGING INSECTS

Stinging insects, such as wasps, hornets or bees, routinely build nests in shaded areas on the exterior of structures or even in interior wall voids.



Droppings



RODENTS

If you see droppings, you might be dealing with mice or rats. Droppings are usually found in drawers, cupboards, runways and other hidden areas, and they vary in shape and length depending on the species, often 3 to 20 mm in length.





FLIFS

Maggots are flies in their larval stage. You would usually find them in food refuse or other garbage storage areas.

IF YOU SFF:

YOU MAY HAVE:







ANTS

If you see a few ants, chances are you probably have an infestation. Look for more ants and discarded wings near exterior doors and windows to identify entry points, and then look for ants along the exterior of your facility to locate and help treat the source of the problem.



Discarded wings



TERMITES

Some termite species make nests in a tree hollow or hollowed wood. On the other hand, subterranean termites build nests underground. When termites eat wood inside your business, they often weaken the structure, which can compromise the structural integrity of the building. They can fly to find new places to create colonies. Last, if you see discarded termite wings, you may have a termite swarm on your hands.



Oval-shaped egg cases



COCKROACHES

If you have a cockroach infestation, you will probably find oval-shaped egg cases, known as oothecae (pronounced "ooh-theek'-eye"), which can be found in spaces behind furniture or equipment, or along door boards. Small, dark, grainy droppings could indicate a cockroach problem, especially if you have a very large cockroach infestation.

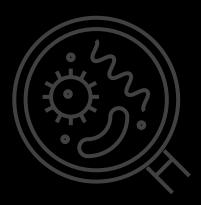


Bites



MOSOUITOES

Bites don't equate to a mosquito infestation, but you shouldn't rule them out.



SHUTOUT

You Can Take Action Against These Pests Today

The single most important way to help stop pests in their tracks is to identify how they are (or could be) getting into the building in the first place and then eliminate their access at the source. These entry points go well beyond the obvious doors – for many pests, cracks as little as 1/5 cm provide the clearance they need to get in the building.

IDENTIFY & ELIMINATE POINTS OF ENTRY

There are various ways for pests to enter any facility, so it's important to continuously monitor for pest activity. Here's a summary of areas to check off your list as you work with your pest provider to help shut pests out.



DOORWAYS

Most healthcare facilities experience the constant opening and closing of external doors. This is an easy entry point for pests. It's important that doors and windows are not propped open for extended periods of time. Unscreened windows are another risk of entry for pests. The seals around doors and windows are important, too - not only to help prevent the entry of pests but also to help block out moisture, which could attract more pests.



LOADING DOCKS

Large entry points like loading dock doors shouldn't be left open for extended periods of time. Deliveries from vendors especially food products, flowers and plants - should be checked upon arrival. Supplies should be removed from cardboard as soon as possible and the cardboard recycled.



DINING AND FOOD PREPARATION

There is a chance for pest activity anywhere food is served or stored. Trash, food debris and spills draw pests to these locations, so it's important to keep them readily cleaned. Food should always be properly sealed and stored, and kitchen drains and areas under appliances should be regularly checked for leaks or other sanitation concerns.



COMMON AREAS

High-traffic areas should be cleaned throughout the day. Restrooms are an area where moisture and wetness can attract insects like roaches, so it's important to keep them dry and clean.



STORAGE AREAS

Storage areas like janitorial closets should be kept as dry as possible and always well-ventilated. Leaky pipes and clogged drains should be remedied quickly.



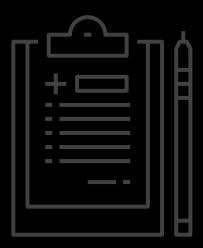
BUILDING EXTERIOR

The exterior of your facility should be regularly inspected to help ensure there are no structural faults that could allow pest entry. Cracks in the foundation and in building walls should be sealed.



AREAS WITH ODOUR

Foul odours are a calling card for flies as they search for their next meal or a breeding ground. If you notice areas around your facility that smell bad, it's important to get to the source of the problem and eliminate the odour.



SOLUTION

Here's How You Can Achieve Long-Term Proactive Pest Control

All too often, pest control is a reactive process – there's a problem, someone calls a pest control professional who applies a treatment of some kind and then everyone waits to see if the problem comes back or until the next pest problem appears. This is really the opposite of the Integrated Pest Management (IPM) approach we recommend.

By this point, you get that we strongly believe in an ongoing IPM approach for healthcare facilities of all shapes and sizes. Traditional approaches simply treat the symptoms of the latest pest problem, whereas IPM providers take into account the biology and behaviour patterns of specific pests to identify the root cause of infestations.

With this insight, your provider may begin to predict potential problems based on conditions in the facility and their knowledge of common local pests. An IPM strategy focuses on the long-term prevention of pest problems while still providing the immediate short-term control necessary. And, it has been shown to reduce the use of chemicals and provide economical and effective pest suppression.

The healthcare industry is intensely focused on efficiency and cost savings these days. So it's worth noting that IPM plans are also more cost-effective in the long run because they are not simply treating symptoms as they arise – they're implementing preventive maintenance and discovering the root cause of pest problems. A well thought-out and implemented IPM plan may actually decrease the money spent on pest management over time.

So let us close with this: if you pay attention to the first three S's above (Settings, Signs & Shutdown), you're more than halfway to an effective IPM strategy. And if you see signs of a budding pest problem, we don't recommend trying to fix it yourself, as it is usually symptomatic of a larger issue. Let a pest management professional get to the root of the issue and assist with sanitation plans, facility maintenance and landscaping changes to make your facility less conducive to pests.

A well thought-out management program is the best prescription for a sanitary healthcare environment.

