

## Specific Infections

Vulnerable people can take longer to recover from infections and some can be life threatening. There will be lots of infections that you've heard of on the news or read about in newspapers such as MRSA and *Clostridium difficile* but you might not know or understand exactly what they are, what symptoms they cause, how they are transmitted and how they are managed and can be controlled.

Some of the most common infections associated with older people living in care homes are;

- **Norovirus** (commonly referred to as winter vomiting)
- **Scabies**
- ***Clostridium difficile* Infections** (commonly referred to as CDI; *C.diff* or *C.difficile*)
- **Meticillin Resistant *Staphylococcus aureus*** (commonly referred to as MRSA)

**Norovirus** are one of a group of viruses that can cause vomiting and diarrhoea and is also known as 'Winter Vomiting Disease' and is the most common cause of viral gastroenteritis.

Outbreaks are common in semi-closed environments such as hospitals, care homes, schools and cruise ships.

Outbreaks tend to affect more than 50% of susceptible people and they are difficult to control due to the ease of transmission of the virus from person to person and the ability of the virus to survive in the environment for a number of days.

### Symptoms

The time from coming into contact with the virus to becoming ill can be 12-48 hours.

People with the infection usually stop having symptoms within 2-3 days but 40% of people can still have symptoms for 4 days:

- Nausea
- Vomiting
- Watery diarrhoea
- Headaches
- Aching limbs, stomach cramps
- Raised temperature
- A feeling of weakness

Spread occurs through contact with an infected person, consuming contaminated food or water and contact with contaminated surfaces or objects. Vomiting in particular can cause minute virus particles to travel through the air which can be inhaled or can land on

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surfaces which people can then pick up on their hands. Norovirus can survive on surfaces for at least a week.

## Prevention & Control

- Care for individuals with symptoms in a room on their own where possible
- Closure of the affected area of the care home to admissions and activities during the course of the outbreak. Contact the Health Protection Team for advice
- Apply standard infection control precautions at all times and ensure hands are washed with liquid soap and water. Alcohol based hand rubs are not effective in this situation
- Infected staff must not come into contact with vulnerable people until they are symptom free for 48 hours
- Cleaning must be increased, using a detergent followed by chlorine based disinfectant, with special attention given to items that people touch frequently like door knobs or handrails is important
- Commodes and other frequently touched items and areas to be cleaned initially with soap and water and then followed by a chlorine based disinfectant
- Fans should not be used

**Scabies** is a condition caused by a small mite by the name of *Sarcoptes scabiei*. Infection occurs when people have contact with the mite. Once the mite gets on the body it burrows under the skin and toxins released in the mite's faeces create an allergic reaction. It can take up to 5 or 6 weeks before the itching starts.

Scabies is transmitted from person to person by skin to skin contact. It is much less likely to be transmitted by sharing clothes or personal items of an infested person as the mite dies outside the host within 8 hours.

## Symptoms

- A rash and intense itching can occur on particular areas of the body. These include the wrists, back of the hands between the fingers, belt lines at the waist, thighs and genital areas, armpits, beneath the breasts, knees and ankles
- Intense itching occurs particularly at night
- Sometimes burrows and occasional vesicles can be seen

Sometimes, people who are very vulnerable can develop a more severe form of scabies called "Crusted Scabies" or Norwegian scabies. The rash forms crusted lesions resulting in massive skin scale shedding which is highly infectious. Therefore the affected person

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must be cared for in their own room. Further contact and advice is required from the GP or Health Protection Team when this occurs.

## Prevention & Control

- If one person is affected by scabies in your setting it is recommended that all staff and residents are treated at the same time, even if they don't show any symptoms - just in case. This needs to be repeated 7 days later. It may be reasonable and advisable to delay treatment until full plans have been properly made to carry this out. Your Health Protection Team can advise you
- Follow manufacturer's instructions for the application of the cream or lotion and ensure it has been prescribed. Ensure all exposed skin is treated. One tube may not always be enough
- Once treatment starts thorough cleaning of bedding, clothing, and the environment is advised although reassuringly once the mite is off the host it will die within 8 hours
- Even after treatment the mite's faeces remain, causing itching for up to another 3 weeks. Prescribed antihistamines can help

Further advice should be sought from the Health Protection Team or the local infection control nurse.

***Clostridium difficile*** infection (CDI) is a common cause of intestinal infections and is mostly associated with antibiotics.

Approximately 3% of healthy adults and 20% of hospitalised patients carry *Clostridium difficile* in their gut without causing any harm. In the older person in a care home this may be between 20 – 50%.

CDI occurs when the balance of the 'normal' bacteria in the large bowel is altered, allowing *Clostridium difficile* to flourish. This can occur due to antibiotics, gut surgery, and drugs used for gastric conditions.

Those at greatest risk are the over 65s with underlying illness who are on or have recently had certain antibiotics. Immuno-compromised people are also at risk, as are those who have experienced prolonged stays in healthcare settings.

## Symptoms

It can cause diarrhoea of varying severity through to severe inflammation of the bowel

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which can sometimes be life threatening. Diarrhoea may be bloody and this must never be ignored. It is also foul smelling. A large number of *Clostridium difficile* spores are excreted in the diarrhoea of patients with CDI. The spores can contaminate the environment for long periods of time and be a source of hand-to-mouth infection for others.

It is normally diagnosed by carrying out laboratory testing which shows the presence of *Clostridium difficile* toxins in the faecal sample.

*Clostridium difficile* can be treated with specific antibiotics. There is a risk of relapse or re-infection in 20-30% of people and other treatments may be tried.

## Prevention & Control

- Antibiotics are prescribed only if necessary, using the right antibiotic, the correct dose and the appropriate length of treatment
- Care for a person who is suffering from diarrhoea in a room on their own
- Meticulous hand hygiene with liquid soap and warm running water (staff, those you care for and visitors). Alcohol based hygienic hand rubs are not effective against *Clostridium difficile*
- Unnecessary antibiotics and anti-diarrhoeal medication should not be taken by those who are infected
- Use of disposable gloves and apron
- Good standards of environmental cleaning
- Disinfection of contaminated equipment and environment with a chlorine based agent is advised. For further advice contact your Health Protection Team
- If the individual's condition deteriorates you should seek medical advice

**MRSA** stands for Meticillin Resistant *Staphylococcus aureus*. It can live harmlessly on the skin, but sometimes cause infection. Around one in three people carry *Staphylococcus aureus* in the nose or on the skin. It is normally no risk to healthy people.

MRSA is mainly spread from person to person through hand contact. MRSA is only detected by a laboratory. This is usually only when a wound or another area of the body becomes infected and it can be identified by taking a swab, for example from a leg ulcer or eyes or by obtaining a specimen from urine or sputum.

Thorough hand hygiene is the most important way of stopping the spread of MRSA. MRSA was first identified in hospitals but it is now found in the general community and in care homes.

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It is not necessary to isolate someone with MRSA in care homes. Sometimes you may hear that someone is colonised and not infected. Colonisation means that the bacteria are on the skin or in the nose but they are not causing any harm and do not need any treatment.

Always check your local policy to ensure you are carrying out the correct procedures.

## Symptoms

- Symptoms will be related to where the infection is found however, most people living in care homes who are colonised are not infected with MRSA

## Prevention & Control

- Hand hygiene and standard infection control precautions inclusive of environmental cleaning are essential
- A clean dust free environment is key
- An individualised treatment plan for any infection

To break the chain of infection

Remember:

- Recognize and report illness or signs of infections
- Document and carry out infection prevention and control measures
- In addition to the standard infection control precautions mentioned some further precautions may be required; your Health Protection Team can advise you.