Public Health England

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Monkeypox: Guidance for environmental cleaning and decontamination

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Public Health England
Wellington House
133-155 Waterloo Road
London SE1 8UG
Tel: 020 7654 8000
www.gov.uk/phe
Twitter: @PHE_uk
Facebook: www.facebook.com/PublicHealthEngland

Further information on monkeypox is available on the PHE webpage
https://www.gov.uk/guidance/monkeypox

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This document outlines guidance for the measures to take to clean and decontaminate healthcare and domestic settings that have been potentially contaminated by a confirmed case of monkeypox.

Background

Monkeypox is a rare disease that is caused by infection with monkeypox virus and does not spread easily between people. Spread of monkeypox may occur when a person comes into close contact with an animal, human, or materials contaminated with the virus. The virus enters the body through broken skin (even if not visible), the respiratory tract, or the mucous membranes (eyes, nose, or mouth). Person-to-person spread is very uncommon, but may occur through:

- contact with clothing or linens (such as bedding or towels) used by an infected person
- direct contact with monkeypox skin lesions or scabs
- large droplet respiratory spread from prolonged close contact with an individual with a monkeypox rash

The environmental risk is greatest from clothing and linens used by an infected person, for example in bedrooms and bathrooms.

1. Healthcare settings

Decontamination of a room

Individuals cleaning or decontaminating rooms that a patient with monkeypox has spent significant time in should wear appropriate personal protective equipment (PPE) to avoid direct contact with contaminated material during the process.

The PPE required is:

- a disposable gown
- disposable gloves
- disposable shoe covers
- respiratory protection (FFP3 respirator)
- eye protection

Contaminated clothing and linens should be collected and bagged before the room is cleaned. These clothing or linen items should not be shaken or handled in a manner that may disperse infectious particles. Items of potentially infected clothing or linen

should be placed in a water soluble (alginate) bag, sealed or tied and placed inside an impermeable bag for transport to the laundry facility.

After contaminated clothing and linens have been removed, the rooms can be cleaned and disinfected as per standard terminal cleaning of an isolation room. The monkeypox virus will be destroyed through the use of hospital detergents followed by disinfection with 1000ppm available chlorine (sodium hypochlorite). As an alternative, 5000ppm available chlorine may be used on its own. The user should decide which is appropriate for the surface. Pay particular attention to frequently touched surfaces such as tables, door handles, toilet flush handles and taps. Primary care settings that do not have a terminal clean protocol should seek local infection prevention and control advice.

The protective cover over mattresses can be cleaned by wiping with detergent solution, removing excess fluid and then wiping with 1000ppm available chlorine and allowed to air dry. As an alternative, 5000ppm available chlorine may be used on its own, however the user should check what concentration is suitable for the item to be decontaminated. If there is a chlorine residue, this should then be wiped off with clean water. A damaged protective cover should be replaced and the old cover should be incinerated. If the mattress itself is soiled, it should be double wrapped and sealed, and sent for incineration. *Note: Mattresses are too large for most incinerators, so arrangements should be made with the waste disposal company to saw the mattress into sections in a defined and cleanable space, by individuals in full PPE with FFP3 masks. Specialist support for this is available from the Biosafety group at PHE Porton, contact via the Rare and Imported Pathogens Laboratory (RIPL) 24 hour line on 07789 031672 who will notify the team*.

Carpets and soft furnishings should be steam cleaned.

PPE worn when removing clothing and linens should be disposed of in a manner consistent with the Waste guidance below.

Cleaning of common areas

For those rooms where the case may have spent limited time, appropriate PPE for cleaning includes a surgical face mask, visor or goggles, disposable gloves and apron to protect the individual from potential splashes from the detergent and sodium hypochlorite used.

Cleaning should include the use of hospital detergents followed by disinfection with 1000ppm available chlorine. As an alternative, 5000ppm available chlorine may be used on its own. The user should decide which is appropriate for the surface. Pay particular attention to frequently touched surfaces such as tables, door handles, toilet

flush handles and taps. Carpets and soft furnishings should be steam cleaned, where possible.

All PPE and disposable materials should be disposed of in a manner consistent with the Waste guidance below.

Laundry

After removing clothing and linens from the rooms as described above, they must be washed in a standard washing machine with hot water (over 60^0 C) and detergent; bleach may also be added but is not necessary.

Waste

Any waste generated from a known or high risk monkeypox patient should be dealt with as Category A waste. Details of how to deal with category A waste should be found in the Trust's Viral Haemorrhagic Fever plan. Alternatively, advice can be sought from the local waste contractor, a Dangerous Goods Safety Adviser, or in Health Technical Memorandum 07:01 'Safe Management of Healthcare Waste'.

2. Domestic settings

If cleaning is required in a domestic setting, such as a home or a car, individuals should be made aware that they should not attempt to clean or decontaminate the area themselves. The local HPT should be contacted and in liaison with the local authority, they will arrange for specialist decontamination of the affected areas and disposal of any waste.

The PPE required for cleaning of a domestic setting is:

- a disposable gown
- disposable gloves
- disposable shoe covers
- respiratory protection (FFP3 respirator)
- eye protection

Cleaning of domestic settings should be carried out in the following order.

Contaminated clothing and linens should be collected first before the room is cleaned. These clothing or linen items should not be shaken or handled in a manner that may disperse infectious particles.

Items that have been in direct contact with the skin of an infected person and are not easily washable in a home washing machine, for example duvets, pillows, or blankets, can be sealed, bagged and destroyed as Category A waste. Other items that have been in direct contact with the skin of an infected person and are easily replaceable, such as sheets, towels or underwear, may also be sealed, bagged and destroyed as Category A waste.

All other clothing and linen items can be washed in a standard washing machine with hot water (over 60^0 C) and detergent, using an extended washing cycle. Washing in hot water is preferable, however if the material is particularly valuable or sensitive and will be damaged by high temperatures, two back to back washing cycles at a minimum of 30° could be used. Washed items should not be placed into areas where they may be recontaminated during the cleaning process.

Domestic settings, including car interiors, should be cleaned using a HEPA filtered vacuum cleaner, and the vacuum cleaner contents should be disposed of as Category A waste.

Hard surfaces should be cleaned using detergents similar to those used in a hospital setting, followed by disinfection with 1000ppm available chlorine and allowed to air dry. As an alternative, 5000ppm available chlorine may be used on its own. The user should decide which is appropriate for the surface. If there is a chlorine residue, this should then be wiped off with clean water.

Soft furnishings, such as carpets, sofas, curtains, mattresses and car interiors, should then be professionally steam cleaned by individuals wearing full PPE as described above. Duvets and pillows that have not been in direct contact with the skin of an infected person and cannot be washed in a home washing machine may be steam cleaned.