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# Virtual management of confirmed Monkeypox cases

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# 1. Purpose

1. This document is to support healthcare teams to care for patients diagnosed with Monkeypox who are isolating in their own home, usual place of residence or isolation facility, via a remote monitoring virtual pathway. Responsibility for care, including ensuring appropriate clinical governance, remains with the provider that requested the monkeypox test.
2. This guidance is correct at the time of publishing. However, as it is subject to updates, please use the hyperlinks to confirm any information you are disseminating to the public is accurate.

# 2. Background

3. Monkeypox primarily occurs in Central and West Africa. Symptoms of monkeypox begin 5-21 days (average 6-16 days) after exposure with initial clinical presentation of fever, malaise, lymphadenopathy and headache. Within 1 to 5 days after the appearance of fever, a rash develops, often beginning on the face or genital area then spreading to other parts of the body. The rash changes and goes through different stages before finally forming a scab which later falls off. The illness is usually mild and most of those infected will recover within a few weeks without treatment. The mortality for the strain of monkeypox we are currently seeing in the UK is low ( $\approx 1\%$  in Africa) with pregnant women, children and immunocompromised hosts being at highest risk.
4. Admission to highly specialist 'containment' facilities within the High Consequence Infectious Diseases (HCID) Network would normally be mandated for all cases confirmed by UK Health Security Agency (UKHSA) specialised laboratories. However, the mortality of the condition is low and virtual management has been identified as a safe pathway to support the management of Monkeypox patients at home. Information on virtual wards has previously been published [here](#).

5. First diagnosed in the UK in 2018, monkeypox has been a rare and sporadic imported infection. The NHS England HCID Network successfully managed all seven cases from 2018-21.
6. At present, there is a large outbreak of monkeypox in several European countries, including the UK, and further afield globally. While the UK's first case in May 2022 involved travel to Nigeria, all subsequent cases have none of the typical exposure risks and represent chains of transmission with the UK population. Anyone can get monkeypox. Currently most cases have been in men who are gay, bisexual or have sex with men, so it's particularly important for these people to be aware of the symptoms.
7. The UK clinical and public health response to monkeypox was initially based on the HCID system. This was highly precautionary and designed for complete containment around single cases. It was also designed prior to the confirmed availability of vaccine and treatment. [UKHSA has now confirmed](#) that community transmission is occurring in the UK with multiple generations of spread. Illness appears to be generally mild, consistent with other information about the West African clade.
8. Details of further advice and guidance is available on [gov.uk](#). Information for patients is available on [nhs.uk](#).

## 3. Management of positive monkeypox cases

9. When a patient tests positive for monkeypox, they are assessed against the [risk stratification tool](#) published by NHS England. This allows positive cases to be placed into three groups:

### **Group A - Severe disease** (one of the following)

- Adults with severe clinical illness, (eg NEWS2 score of 5 or above), which may include significant lower respiratory symptoms, confusion/encephalitis and other complications (secondary bacterial infection, sepsis, etc).

- Widely disseminated lesions and very many in number ('one hundred or more')
- Suspected infection of the cornea
- Severe, refractory pain from lesions requiring hospitalisation to achieve symptomatic control\*
- Lesions associated with complications due to pain or swelling e.g., constipation, urinary retention, or inability to swallow\*
- Those who are at heightened risk of complications as a result of having monkeypox (immuno-compromised individuals, children, and those that are pregnant).

These cases should be admitted to a HCID Unit (those marked with an \* can be admitted to either an HCID Centre or SRIDC depending on capacity)

**Group B - Risk to others** (one of the following)

- Individuals living in a household with at risk individuals ((immuno-compromised individuals, children, and those who are pregnant) who are unable to relocate while the individual who has tested positive self isolates
- Those who are highly unlikely to be able to self-isolate

These cases should be admitted to a specialist regional infectious disease centres (SRIDC).

**Group C - Lowest risk**

- Individuals who can self-isolate safely, are clinically well and with good evidence that they are recovering.

These cases should isolate at home until they meet the [criteria set out by UKHSA](#).

10. Patients who are risk-assessed as group C (lowest risk) and are therefore clinically stable should be asked to isolate at home. Clinical judgement

remains paramount for all assessments, particularly for patients with significant risk factors or other complicating medical conditions.

11. Patients assessed and identified as being in group C at lowest risk should be cared for virtually.
12. All positive cases should be notified to the UKHSA and isolation guidance reinforced.

## 4. Initial considerations

13. An initial assessment form for a patient with a positive monkeypox result to include discussion points when entering a virtual management is available in Appendix 1.
14. A shared decision-making conversation should be held prior to entry onto the pathway and a discussion held about any support requirements for patients or carers to ensure a personalised care approach.
15. Patients will need to consent to the clinically supervised pathway, agree frequency of reviews with the healthcare team and ensure appropriate escalation if symptoms worsen.
16. Where possible virtual management should be fully technology-enabled (the management of patients via a digital platform) to optimise care of patients, support communication and enable the effective management of a patient's condition.

## 5. Admission to virtual management

17. Patients entering the pathway should be provided with the monkeypox patient information leaflet (included with this document) including advice on where to access local support both in and out of hours.

18. Patients who do not require hospitalisation for medical indications isolate at home in line with [guidance issued by UKHSA](#).
19. Infection Prevention Control (IPC) equipment and information such as surgical masks, gloves, aprons or other equipment may need to be given to support home management in line with local arrangements.
20. Patients should be encouraged to review symptoms regularly and be aware of red flags to understand when and how they should seek help.
21. Where indicated, a sufficient supply of medication to manage the symptoms on review (eg, analgesia, antibiotics etc) should be prescribed.
22. There should be a review of the supply of regular medications, and prescription for any that might run out during the isolation period.

## 6. Monitoring through virtual management

23. Patient reviews should occur as they would be for a hospital-based ward round unless less frequent review is deemed necessary by the lead consultant. While the frequency of reviews can be determined locally and in consultation with the patient, it is advised that these take place at least every 48 hours.
24. Use of the clinical syndrome table (appendix 2) may be used to support clinical assessments to include patient advice and red flags.
25. Where video consultations are not taking place, photographs of affected areas can be submitted to support assessment. This should be done in line with [best practice](#).
26. The psychological impact of isolation should be included as part of the ongoing assessment of symptoms and function.
27. Where there is concern regarding deterioration of symptoms the patient should be assessed again in line with the [risk stratification tool](#) and the appropriate action should be taken.

28. The assessment form for ongoing monitoring is available in appendix 3.

## 7. Recovery and discharge

29. There are two stages to de-isolation of patients in household settings. In accordance with the [UKHSA deisolation guidelines](#) (see chart below).

<b>Group C Virtual Ward: De-isolation Criteria</b>
<b>Stage 1: Ending self-isolation</b>
✓ No new lesions for 48 hours
✓ No oral mucous membrane lesions present
✓ All lesions crusted over
✓ Exposed skin lesions (face, arms, hands): all scabs have dropped off and fresh new skin has formed beneath
✓ Non-exposed skin with scabbed lesions can remain covered when patient is outside their home or when in contact with strangers
✓ Avoid contact with immunosuppressed/pregnant/≤12 year olds, even if it means exclusion from work.
<b>Stage 2: Full de-isolation</b>
✓ All lesions have crusted over, the scabs have dropped off and intact skin remains beneath

30. Decisions regarding discontinuation of isolation precautions should be made in consultation with the local team caring for patient and current national guidance on de-isolation.

31. On discharge from virtual management, the patient's general practice, and any teams involved in chronic conditions should be informed and their health record updated accordingly.



## 8. Staffing and oversight

32. Responsibility, including ensuring appropriate clinical governance, remains with the provider that requested the monkeypox test. The monkeypox virtual management review is led by a named consultant/doctor with relevant infectious disease (infectious disease)/genitourinary medicine (GUM) experience and overseen by a lead senior clinician. It is expected that reviews would occur 24-48 hourly based on assessment by the clinical team. The workforce requirements are significantly less intensive than the patient being in an NHS bed.
33. Providing safe and robust monkeypox virtual management requires staffing - potentially for up to 12 hours a day (8am–8pm) seven days a week - with locally arranged provision of out-of-hours cover. When monkeypox virtual management is started, patients should be given a hospital number to call for any advice or support required during these hours, which is provided by the health care team.

## Appendix 1 - Initial assessment of a patient with a positive monkeypox result & entering virtual management and documenting discussion

### Appendix 1 a) Assessment form positive monkeypox result

<b>A Clinical condition</b>	
- Date of symptom onset:	
- Date(s) and type of positive sample(s):	
- Rash: <ul style="list-style-type: none"> <li>○ how it is evolving</li> <li>○ itchy/painful</li> <li>○ dry/wet/crusted</li> </ul>	
- Fever	
- Headache	
- Muscle aches	
- Backache	
- Swollen lymph nodes	
- Chills	
- Exhaustion	
- Eating and drinking?	
- Urinary symptoms?	
- Genital discharge?	
- Other concerns:	
<b>B Isolation circumstances- re-review initial information given is still correct/hasn't changed:</b>	
- Who do you live with? (Children? Adults? Animals?)	
- Anyone immunosuppressed/pregnant?	
- Own bed?	
- Own bathroom?	
- Ability to isolate? Ability to move out if needed?	
- How are they coping with isolation so far?	
- Would they be willing to be admitted to hospital if required?	
- Any notification of positive contacts since last review?	
<b>Risk group assessment (see table below for assessment):</b>	
Date and time:	
Clinician name/Grade	

## Appendix 1b Entering virtual management & documentation of discussion

Discussion points to explain to the patient entering virtual management:	
	They will be followed up in virtual management whilst in isolation.
	They must continue to self-isolate until their skin lesions have <b>fully</b> healed. It is difficult to predict exactly when that will be as it is individual dependent. <i>(Likely to be longer in those who are immunosuppressed).</i>
	They will be called by UKHSA with regard to contact tracing.
	Encourage good supportive self-care will expedite recovery.
	<i>They may be provided with home self-monitoring kits to use once daily</i>
	Reassure it is usually a mild illness, but if they note any severe worsening of symptoms, particularly fevers, back pain, cough, shortness of breath, spreading red hot skin around the lesions they should contact the monkeypox phone [LOCAL PROVIDER NUMBER]
	They will be reviewed every 24-48 hours or as required based on clinical judgement, patient symptoms and local arrangements
	Offer to provide documentation for employers etc, outlining medical requirements for isolation.
Documentation of discussion	
	Assess and document their response to this information, especially major concerns/issues raised.
	If they are very upset assess for any red flags relating to self-harm or suicide.
	Clearly document discussion and update senior if any concerns about the interaction that might warrant change in group.
	Follow up telephone appointment at least every 48 hours or as deemed clinically appropriate
	Send a letter to the GP/other health care providers e.g. HIV service on entering virtual management.
	Any promised documentation for employer etc

## Appendix 2: Monkeypox symptomatic assessment tool

Primary illness Symptoms	Monitoring method in addition to virtual clinic discussion	Patient advice	Red Flags
Widespread skin rash	Photographic record	Keep skin clean, protected and where possible aerated Avoid rubbing/touching lesions Keep well hydrated	Fever Problems with eyes/vision due to lesions Poor urine output
Pain		Keep skin clean, protected and where possible aerated Avoid rubbing/touching lesions Keep well hydrated Take regular analgesia	Fever Rapidly spreading redness of the skin Unable to eat and drink Significant impact on mental wellbeing
Genital ulcers	Photographic record	Keep skin clean, protected and where possible aerated Avoid rubbing/touching lesions Keep well hydrated	Fever Unable to urinate due to lesions Poor urine output
Oral ulcers	Photographic record	Warm saline gargle Keep well hydrated	Fever Unable to eat/drink due to ulcers Poor urine output
Conjunctivitis (red eye)	Photographic record	Normally self-limiting.	Worsening vision Eye pain/pain on eye movement Swelling around eye Double vision
Flu-like symptoms	Thermometer	Normally self-limiting. Paracetamol Keep well hydrated	Shortness of breath Dizziness Poor urine output
Itching		Anti-histamine Try not to scratch Keep cool at night	Eyes going yellow Dark urine Light stool Abdominal pain
Nausea and vomiting. Poor appetite		Keep well hydrated	Fever Unable to eat and drink Poor urine output Dizziness
Complications			
Secondary bacterial skin infection (boils, abscesses, skin, dermatitis)	Photographic record of rash.	Keep well hydrated Paracetamol Seek medical advice if red flags	Rapidly spreading hot/red/swollen skin rash Fever
Pneumonia	Thermometer	Keep well hydrated Paracetamol Seek medical advice if red flags	Cough productive of coloured sputum Fever Chest pains
Keratitis/corneal ulceration	Photographic record	Seek medical advice if red flags Do not wear contact lenses Keep eye clean and dry	Worsening vision Eye pain/pain on eye movement Swelling around eye Double vision
Sepsis	Thermometer	Keep well hydrated Paracetamol Seek medical advice if red flags	Chills/shakes/high temperatures + any of: <ul style="list-style-type: none"> <li>- Severe headache/neck pain</li> <li>- Difficulty breathing</li> <li>- Diarrhoea/abdominal pain</li> <li>- Dizziness on moving</li> <li>- Unable to eat and drink</li> <li>- Poor urine output</li> </ul>
Encephalitis	Thermometer	Seek medical advice if red flags	Sepsis red flags above plus Confusion Severe headache Fever
Depression/deteriorating psychological state		Signpost to online support/Samaritans/ [Local phone number support service]	Assess: Thoughts of self-harm Suicidal intent

## Appendix 3: Monkeypox virtual management review consultation form

Consultation details			
Clinician name/role:			
Date and time of follow up:			
Date of last orthopox test:	Skin:	Throat:	EDTA:
Last orthopox test result:	Positive/negative		
Day of isolation:			
A Clinical condition			
Rash evolution:			
<ul style="list-style-type: none"> <li>- Any new lesions?</li> <li>- Appearance dry/wet/crusted?</li> </ul>			
Any features of secondary bacterial infection? e.g. fever, spreading redness,			
Any other clinical symptoms?			
Other concerns:			
B Isolation circumstances- re-review initial information given is still correct/hasn't changed:			
How are they coping with isolation so far?			
How is their mood?			
How is their appetite?			
Biggest concerns at the moment?			
Questions asked:			
Additional information if applicable:			
<b>Date of latest rash photos sent in:</b>			
Any concerns that the patient is now in Group A or B and requires review/ admission		Y/N	
Any concerns about the patient's psychological state?		Y/N	
Any concerns about social/isolation circumstances?		Y/N	
Does patient meet de-isolation requirements?		Y/N	
<b>Plan:</b>	- Next follow up appointment made in XX hours (to be agreed by clinical team with patient)		
<b>Name/Grade</b>			<b>Date:</b>



## Monkeypox patient information leaflet

This information is correct at time of publishing. Monkeypox guidance may change so please check [nhs.uk](https://www.nhs.uk) and [gov.uk](https://www.gov.uk) for the most current information.

The contact details of your local healthcare team are below if you need to discuss any concerns or change in symptoms.

Your local team will contact you regularly, this will be agreed with you.

Name: XXXXX Opening Hours: XXX Phone Number: XXXXX

Name: XXXXX Opening Hours: XXX Phone Number: XXXXX

Further to your confirmed diagnosis of monkeypox, your healthcare team have provided this leaflet to support you to monitor your symptoms. This will help you to recognise if your symptoms get worse and enable you to get the help you need such as extra support or admission to hospital.

Monkeypox virus can be spread from an infected patient through:

- touching clothing, bedding or towels they use
- touching their skin blisters or scabs
- coughing or sneezing
- prolonged skin to skin contact.

### Isolating at home

Full guidance on isolating at home has been published by UKHSA and is available [here](#). This includes details on how to clean your home and dispose of waste as well as what to do with any pets.

- If you have been diagnosed with monkeypox and you have been advised to self-isolate at home by your doctor, you should not go to work, school or public areas.
- Do not invite or allow social visitors, such as friends and family, to visit you at home.
- Avoid close contact with people you live with, take the following steps to reduce the chance of passing your infection on to the people you live with:
  - sleep in a separate room, if available, and do not share bedding. You may need to change your sleeping arrangements to accommodate this
  - use a separate bathroom from the rest of your household, if available. If you do not have a separate bathroom, follow the cleaning instructions below
  - make sure you use separate towels from other people in your home
  - eat in a separate room. Ask the people you live with to bring your meals to you, do not share food and drinks
- Clean your hands frequently throughout the day by washing with soap and water for 20 seconds. Care should be taken if there are extensive or ulcerated hand lesions
- Keep your laundry items separate from the rest of the household's laundry and wash them using your normal detergent, following manufacturer's instructions. If possible use the highest temperature which the items can withstand, do not overload the washing machine (aim for half or two-thirds full) and avoid shorter 'economy cycles' (those which reduce water and save energy) until you have fully recovered.

## Medical advice

You should discuss any health concerns, including any concerns that may not relate to monkeypox, with your healthcare team. Details of monkeypox symptoms are detailed below.

If you have difficulty contacting your local healthcare team please dial 111.

If you require immediate emergency care please call 999.

**You should tell the operator that you have confirmed monkeypox and advise them of the healthcare team that are looking after you.**

All non-urgent medical and dental appointments should be cancelled while you are isolating at home. If you are concerned or have been asked to attend in person within the period you are home isolating, discuss this with your medical contact first.

You should only leave your home for essential purposes such as emergencies, or for urgent health and wellbeing issues.

- If you need to leave your home, make sure the rash on your body is completely covered for example by wearing long-sleeved top and full-length trousers. Wear a well-fitting surgical face mask or a double-layered face covering while you are outside your home.
- Keep the time spent outside your home as short as possible and avoid all contact with objects such as furniture in public spaces. If you need to attend hospital you should walk, cycle or drive yourself there. If you do not have your own vehicle, public transport can be used but you should avoid busy periods, cover any lesions with cloth (for example using scarfs or bandages) and wear a face covering.

### **Mild monkeypox symptoms**

Symptoms are often mild and it can take between 5 and 21 days for the first symptoms to appear. These usually clear up within two to four weeks. Mild symptoms include:

- mild rash limited to face, genitals, hands and feet
- mild fever, temperature or chills
- headache
- muscle aches
- backache
- swollen glands in neck, groin or armpits
- mild fatigue.



These are common symptoms. You may not have all of these but still feel unwell. Paracetamol and regular fluids can help with these symptoms, and most people will get better by themselves within two to four weeks. If you are still feeling unwell after this time, please contact your healthcare team.

It is important that you monitor and report any worsening or new symptoms. Your healthcare team may encourage you to take pictures of your rash, especially if these areas become red, hot or swollen as this may be a sign of worsening infection.

## Contact your healthcare team

If you experience any of the following symptoms, you should contact your GUM or sexual health clinic or NHS 111 as soon as possible:

- significant increase of new lesions ('crops')
- very painful lesions, eg lesions causing difficulty with passing urine or swallowing
- any new signs of lesions that may be rapidly spreading
- hot/red/swollen skin rash
- any problems with eyes or vision eg double vision, blurred vision, eyes becoming yellow in colour or eye pain
- feeling breathless especially when standing up or moving
- new fever that may be a sign of infection
- areas of redness/swelling that can indicate spreading of infection
- change in symptoms, eg dark urine, light or pale stool, abdominal pain or itchy skin
- sense that something is wrong (general weakness, severe tiredness, peeing much less than normal, unable to care for yourself eg simple tasks like washing and dressing or difficulties eating and drinking)
- severe muscle aches or tiredness.

If you are finding it difficult to cope with isolation please speak to your healthcare team.

## Call 999

A minority of people with monkeypox will suffer more severe symptoms or complications. You should dial 999 immediately if you experience the following signs of serious illness:

- sudden difficulty in breathing or breathing faster than normal
- unable to complete short sentences whilst at rest due to breathlessness
- you collapse or faint
- become agitated, confused or very drowsy
- feeling cold and sweaty with pale or blotchy skin
- shivering and shaking uncontrollably
- develop a rash that doesn't fade when you roll a glass over it
- coughing up blood
- stop passing urine or are passing much less urine than usual.

**You should tell the operator that you have confirmed or probable monkeypox. These symptoms require urgent medical attention.**

## Coming out of isolation

- This should be discussed between you and your healthcare team.
- You should self-isolate at home until:
  - you have not had a high temperature for at least 72 hours
  - you have had no new lesions in the previous 48 hours
  - all your lesions have scabbed over
  - you have no lesions in your mouth
  - any lesions on your face, arms and hands have scabbed over, all the scabs have fallen off and a fresh layer of skin has formed underneath
- If you meet all of the points above, you may be able to stop self-isolating and you should contact the medical team for further advice.
- You should continue to avoid close contact with young children, pregnant women and immunosuppressed people until the scabs on all your lesions have fallen off and a fresh layer of skin has formed underneath. This is because you may still be infectious until the scabs have fallen off.
- After your self-isolation has ended you should cover any remaining lesions when leaving the house or having close contact with people in your household until all the scabs have fallen off and a fresh layer of skin has formed underneath.
- If you wish to resume sexual activity after your self-isolation has ended, you should use a condom for 8 weeks after your rash has scabbed over and scabs have fallen off. This is a precaution to reduce the risk of spreading infection to your partner.