Risk Assessment Group

CONSULTATIVE SIGNAL ASSESSMENT
PRIMARY RISK ASSESSMENT
EVIDENCE BASED RISK ASSESSMENT
PUBLIC HEALTH EVENT ASSESSMENT

MONKEYPOX MULTI-COUNTRY OUTBREAK, MAY 2022

Date of the signal	Date of the PRA	Signal provider	Experts consulted	Method
07/05/2022: first case UK (imported) **17/05/2022: cases in second country**	**17/05/2022**	UK/ECDC/ Portugal	Sabine Allard (UZ Brussel), Leïla Belkhir (St Luc UCL), Caroline Boulouffe (AViQ), Isabel Brosius (ITG), Bénédicte Delaere (CHU UCL Namur), Uwe Ehrentreich (COCOM), Naïma Hammami (AZG), Agnes Libois (CHU-St Pierre), Charlotte Martin (CHU-St Pierre), Carole Schirvel (CHIREC), Patrick Soentjens (ITG), Dominique Van Beckhoven (Sciensano), Marjan Van Esbroeck (ITG), Steven Van Gucht (Sciensano), Marc Van Ranst (UZ Leuven), Koen Vercauteren (ITG), Jean Cyr Yombi (UCLouvain).	**E-mail** consultation 17/05/2022 **Meeting** 20/05/2022 24/05/2022 31/05/2022 08/06/2022
Date of update	**Closing date**			
20/05/2022 **24/05/2022** **31/05/2022** **08/06/2022**				

RAG persons of contact:
Tinne Lernout (Tinne.Lernout@sciensano.be)
Yves Lafort (Yves.Lafort@sciensano.be)
Javiera Rebolledo (Javiera.RebolledoGonzalez@sciensano.be)
rag@sciensano.be

Signal	Since 13 May 2022, cases of monkeypox have been reported in different countries worldwide, without travel link to endemic areas. Cases have mainly but not exclusively been identified amongst men who have sex with men (MSM).

UPDATE 08/06/2022

Epidemiological situation

As of 8 June, a total of 24 confirmed cases and 1 probable case have been identified in Belgium. Most of the cases are living in Flanders (n=17) and Brussels (n=7); there is only one case in Wallonia. All the persons for whom the information is available (n=24) are MSM. The age of the cases ranges between 28 and 52 years.

Worldwide, 644 confirmed cases have been reported in EU/EEA countries (as of 8 June), with the highest numbers still in Spain and Portugal. Outside the EU, another 452 cases were reported, the majority in the UK. There have been no deaths.

The first identified case with known onset date of symptoms in the UK presented symptoms on 21 April, and the first cases in Portugal had symptom onset on 29 April[1]. This, together with the observation that most cases were not part of identified chains of transmission nor linked to travel, raises the hypothesis of possible undetected spread of MPXV in Europe at least since early April.
In the UK, cases reported a median of 4 close contacts (household, community and sexual contacts, HCW not included) and a maximum of 25.

Recommendations

1) Handling of waste and samples
WHO is the only agency that has clear guidelines on how to categorize MPXV and waste that is possibly contaminated with MPXV (see Background information), which corresponds to the classification Category A, UN2814 for the virus and UN3549 for waste.
With regards to how to handle the waste, agencies and countries usually refer to general guidelines on handling infectious waste. In Belgium, guidelines for waste related to an infectious agent are available here: afvalbeheer binnen ingeperkt gebruik finaal 10 01 2022.pdf.
The Service Biosecurity at Sciensano will be requested to give recommendations regarding handling waste and transport of samples for MPXV, taking into account the implications of a very strict classification such as a limited number of carriers with ADR licence (and possibly less samples sent because of complex transport), and the context where most of the cases will remain at home, where there is no specific procedure for handling waste.
A proposal for content of recommendations to the patients is presented in Annex 1.

2) Vaccination
On June 1st, the Superior Health Council of Belgium provided a recommendation of vaccination strategy against MPX in the context of the European multi-country outbreak. Overall, the SHC recommends vaccination with Imvanex® vaccine (2 doses at 28 days of interval; under the skin (S.C. - subcutaneous, preferably in the upper arm) preferably within 4 days after exposure to a

[1] Eurosurveillance, Volume 27, Issue 22, 02 June 2022. https://www.eurosurveillance.org/content/eurosurveillance/27/22

PCR confirmed MPX case (post-exposure prophylaxis), for individuals who have not previously received a childhood smallpox vaccine (except in case of immunodeficiency). However, because of the limited vaccine's availability, different scenarios were considered to identify priority groups for vaccination. The SHC recommends that the responsibility for moving from one scenario to another be given to the RAG.

In the current phase, with only a very small stock of vaccines available (at UZ Antwerpen/ITM and Hôpital Saint Pierre), the RAG recommends that the focus of vaccination should be on preventing severe disease, and thus target (as post-exposure prophylaxis):

- HCW after a high-risk contact (see definitions in previous RAG advice), with a risk of severe disease;
- Very-high-risk contacts that are immunocompromised.

There is not a lot of evidence available yet on risk factors for severe disease, except for advanced HIV and very young age. The decision to offer vaccination will have to be taken based on an individual appraisal, by the treating physician and the regional health authorities jointly.

In a second phase, vaccination as post-exposure prophylaxis is recommended for all very-high-risk contacts, as well as all high-risk contacts at risk of severe disease.

If the virus continues to circulate for a longer period, affecting larger numbers of people, more vaccines doses will be required, to be used to control transmission.

3) Clarification of measures for children and teachers with a HRC

There is currently no evidence available to decide on a cut-off for the age of higher risk of severe diseases in children. However, in the current epidemiological context, the risk of transmission in children and between children remains very low. Therefore, children with a high-risk exposure don't have to go in quarantine and can go to school or other activities (without taking additional measures), even if avoiding close contact is difficult in practice (especially in young children).
Teachers and care givers in crèches that are a HRC can also continue going to work, but should avoid as much as possible close (physical) contact with the children (no hugging etc).
Care givers in crèches with a very-high-risk contact should remain in quarantine.

Background information

Categorisation of waste

WHO: Category A, UN3549.

ECDC: To be decided by each member state.

US: No categorization of the waste, only of the virus: Category A, UN2814, but not an HSS select agent (potential to pose a severe threat to public health and safety, to animal or plant health, or to animal or plant products), because West-African clade.

UK and France: No categorization of the waste, only of the virus: hazard group 3, out of four hazard groups (Can cause severe human disease and may be a serious hazard to employees; it may spread to the community, but there is usually effective prophylaxis or treatment available).

Measures in the health care sector

WHO: According the Guidance on regulations for the transport of infectious substances 2021-2022 (Guidance on regulations for the transport of infectious substances 2021-2022 (who.int)) For transport P622 applies.

ECDC: If assessed as infectious clinical waste category A (UN3549), transport should be handled according to UN transport regulations (i.e. P622).

US: In accordance with U.S. Department of Transportation (DOT) Hazardous Materials Regulations (HMR; 49 CFR, Parts 171-180).

France: According to facility-specific guidelines for DASRI (Guide DASRI (solidarites-sante.gouv.fr)).

The Netherlands: According to the 'Sectorplan 19 Afval van gezondheidszorg bij mens of dier' (19 Afval van gezondheidszorg bij mens of dier - LAP3).

Belgium: Waste management: Sciensano guidelines (afvalbeheer binnen ingeperkt gebruik finaal 10 01 2022.pdf (sciensano.be)). Transport: Ministry of mobility and transport (2017-Vervoer van besmettelijke stoffen (belgium.be)).

Infection control at home

ECDC: Cases should remain in their own room, when at home, and use designated household items (clothes, bed linen, towels, eating utensils, plates, glasses), which should not be shared with other members of the household (see the next section for information on cleaning and disinfection of such materials).
Cleaning of the room where a MPX case stayed should be done without stirring a lot of dust or causing the formation of aerosols and should use regular cleaning products followed by disinfection using a 0.1 % sodium hypochlorite (NaClO) (dilution 1:50, if household bleach is used, usually at an initial concentration of 5%). Particular attention should be paid to toilets and frequently touched surfaces. Contaminated clothing and linens should be collected and washed at 60°C cycles. Carpets, curtains and other soft furnishings can be steam-cleaned.

US: Infection control at home:

- Hand hygiene (i.e., hand washing with soap and water or use of an alcohol-based hand rub) should be performed by infected persons and household contacts after touching

lesion material, clothing, linens, or environmental surfaces that may have had contact with lesion material.

- Laundry (e.g., bedding, towels, clothing) may be washed in a standard washing machine with warm water and detergent; bleach may be added but is not necessary.
    - Care should be used when handling soiled laundry to avoid direct contact with contaminated material.
    - Soiled laundry should not be shaken or otherwise handled in a manner that may disperse infectious particles.
- Dishes and other eating utensils should not be shared. It is not necessary for the infected person to use separate utensils if properly washed. Soiled dishes and eating utensils should be washed in a dishwasher or by hand with warm water and soap.
- Contaminated surfaces should be cleaned and disinfected. Standard household cleaning/disinfectants may be used in accordance with the manufacturer's instructions.

UK: The risk of transmission in the home environment for possible, probable or confirmed cases can be reduced by the case performing regular domestic cleans and washing their own clothing and bed linen in a domestic washing machine.

France: At home, the floor and surfaces can be cleaned and disinfected with commercial detergents/disinfectants. Linen can be machine washed on a 30 minute cycle at 60 degrees. Care waste, if cared for at home, can be disposed of in a sealed, double-wrapped household waste bag, and can be stored for 24 hours prior to disposal in the public trash. These measures will be re-evaluated as knowledge of this virus increases.

ANNEX 1: INFORMATION FOR PATIENT

Blijf thuis

- Ga niet naar uw werk, school of openbare plaatsen. Gebruik geen openbaar vervoer. Vermijd elk bezoek bij u thuis en ga niet bij anderen op bezoek.
- Als uw symptomen verergeren, bel dan uw huisarts om een afspraak te maken. Als u toch (rechtstreeks) naar een spoedgevallendienst gaat omwille van ernstige symptomen, brengt u hen telefonisch op de hoogte voor uw aankomst.

Beperk verdere verspreiding

- Het virus wordt overgedragen door nauw contact met een besmet persoon. Transmissie is mogelijk via direct lichamelijk contact met huidlaesies of lichaamsvloeistoffen van een besmet persoon of met kleding, linnengoed of voorwerpen dat door een besmette persoon wordt gebruikt, of via respiratoire druppels bij langdurig contact tussen personen.
- Was regelmatig uw handen (met water en zeep of met een alcohol doekje), vooral na het aanraken van materiaal, kleding, beddengoed of omgevingsoppervlakken die in contact kunnen zijn geweest met de laesies. Droog uw handen af met wegwerpdoekjes of een propere handdoek.
- Was uw beddengoed, handdoeken of kleding in een gewone wasmachine op 60° en met wasmiddel; bleekmiddel mag worden toegevoegd, maar is niet absoluut nodig.
    - Ga voorzichtig om met vuil wasgoed om direct contact met besmet materiaal te voorkomen.
    - Verontreinigd wasgoed mag niet worden geschud of anderszins gehanteerd op een manier die besmettelijke deeltjes kan verspreiden.
- Vaatwerk en ander eetgerei mogen niet worden gedeeld. Het is niet nodig dat de besmette persoon apart eetgerei gebruikt, mits het goed is gewassen. Vervuild serviesgoed en eetgerei moet in de vaatwasmachine of met de hand met warm water en zeep worden afgewassen.
- Besmette oppervlakken moeten worden gereinigd en gedesinfecteerd. Standaard huishoudelijke reinigings-/ontsmettingsmiddelen kunnen worden gebruikt.
- Vermijd contact met huisgenoten op een afstand van minder dan 1,5 meter. Indien er toch contact is op minder dan 1,5 meter, draag dan een chirurgisch mondmasker.