Mpox[1]: Specimen handling and Laboratory transportation

Mpox testing and specimen handling

If probable case definition met:

Sampling for Mpox: hospital based clinical setting

1. Perform a clinical assessment, including a **test for mpox** using one standard viral swab in *viral transport medium.*
2. The swab should be taken from a cutaneous lesion either ulcer or vesicular fluid if present. If there are concerns that patient is presenting during the prodromal stage and there are no cutaneous lesions, a throat swab may be taken instead. A negative result for the throat swab does not rule out mpox and clinical correlation is advised and a follow up swab sample is required if lesions develop. Otherwise follow-up samples from confirmed cases are not recommended.
3. *Clearly label the anatomical site of sample collection*
4. Double bag the sample at the point of collection in the clinic setting.
5. The referring clinician should inform the local microbiologist and NVRL of probable samples for mpox investigation.
6. The double bagged sample should be taken to the microbiology laboratory in person and not via the pod system. The bag should be clearly labelled as samples collected from a suspected mpox case.

Sampling for Mpox: other clinical settings

1. Perform a clinical assessment and sampling as outlined in steps 1 to 3 above, including a **test for mpox** using one standard viral swab in *viral transport medium.*
2. Package sample in line with UN3373 Category B sampling, the full HSE guidance on Preparation for transport of specimens and other biological materials is available here
3. The summary requirements within the guidance are shown below
4. Contact the National Virus Reference Laboratory (NVRL) to inform them that a sample from suspected mpox case is being sent

[1] Formerly known as Monkeypox

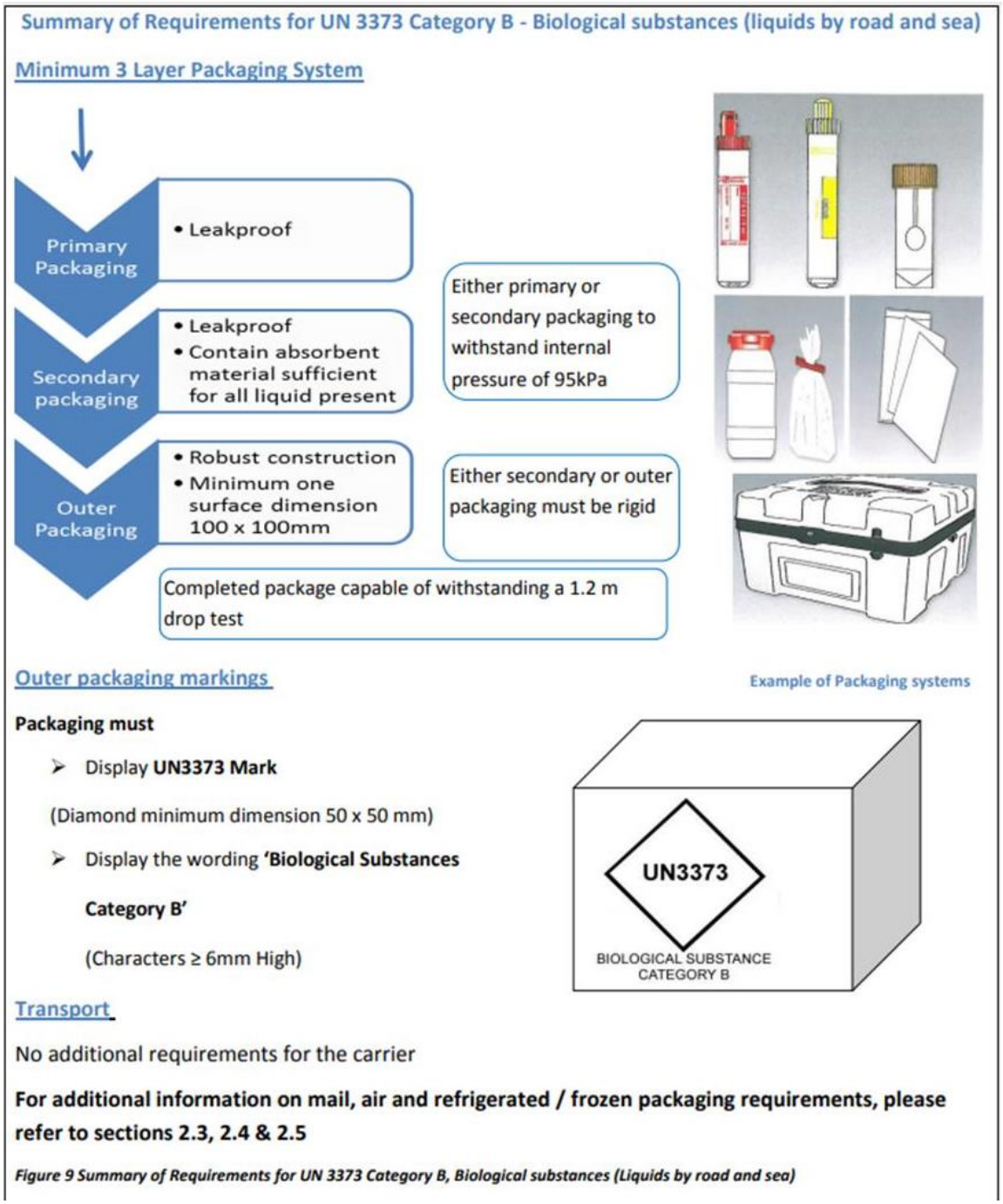

Figure 9 Summary of Requirements for UN 3373 Category B, Biological substances (Liquids by road and sea)

Local Microbiology Laboratory

- Samples from patients with suspected mpox can now be transported as a CATEGORY B pathogen, providing that there is no travel or contact history with the Congo Basin or a clade I (formally Congo Basin mpox) infected individual
- Transport to the NVRL can be arranged by the local microbiology department as a CATEGORY B pathogen according to local standard protocols.
- They should be clearly marked as probable mpox.
- All other sample types that are deemed clinically necessary should also be clearly marked as "probable mpox" and managed through the local microbiology

department according to Appendix I.

NVRL

- The sample will be tested for mpox DNA at NVRL with the aim to test concurrently for VZV DNA and HSV 1 and 2 DNA.

*If testing is undertaken in non-hospital settings, mechanisms for transportation can be discussed with the local public health team

Guidance for handling of other samples from patients with suspected or confirmed mpox infection

- Store samples in the microbiology laboratory until results of mpox virus testing available
- If diagnostic testing is required urgently or if laboratory testing confirms mpox virus infection:
    - Samples for microbiological investigation can be processed in a CL2+ facility including:
        - Routine staining and microscopy
        - Examination of cultures
    - However, any aerosol-generating procedures should be performed in a CL3 facility, (including nucleic acid extraction for pathogens such as HSV, *Chlamydia trachomatis*, *Neisseria gonorrhoeae)* unless the transport medium already includes lysis buffer.
    - Blood specimens from patients with suspected or confirmed mpox virus sent to the haematology and/or biochemistry laboratories can be tested using standard clinical laboratory precautions. Where use of a centrifuge is needed, safety cups or sealed rotors should be used. Following centrifugation, the sealed bucket should be placed in a BSC II cabinet for 10 minutes and the user should open it wearing gloves, long-sleeved gown, visor and FFP2 mask. For any manipulation of samples which would be regarded as aerosol-generating procedures, these should be performed in a CL3 facility.