How to Mount an Effective Response to a Monkeypox Outbreak

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I. Establish occurrence of an outbreak and determine epidemiology of the outbreak

- An outbreak refers to occurrence of an epidemic prone disease in a non-endemic setting, or occurrence of the disease over and above know endemic threshold for the setting
- Once an outbreak of MPX is established, conduct risk assessment to identify high risk groups for targeted interventions and to ensure effective use of resources





Fig 1. Epidemiological pattern of the MPX outbreak (example) Demographics (i.e. based on case report forms)

As of September 05 2022			
	Reported values ¹		
	Yes	No	Onknown or Wissing Value
Men who have sex with men	11923 (95.2%)	607 (4.8%)	33442
HIV-Positive	5576 (44.9%)	6834 (55.1%)	33562
Health worker	313 (4.2%)	7070 (95.8%)	38589
Travel History	1213 (27.9%)	3127 (72.1%)	41632
Sexual Transmission	7822 (91.0%)	777 (9.0%)	37373
Hospitalised ²	1550 (8.4%)	16928 (91.6%)	27494
ICU	9 (0.1%)	8072 (99.9%)	37891
Died	4 (0.0%)	19681 (100.0%)	26287

Case profiles

¹ Note given true proportions of variables, yes reporting may be common than no reporting

² May be hospitalised for isolation or medical treatment





II. Set up leadership and coordination mechanism

- To bring together and coordinate activities of relevant sectors and partners
- To establish communication mechanism (e.g. media briefing, press releases for the public, information sharing with partners etc.)
- To provide relevant operational, material, and financial support for the response efforts
- To organize multidisciplinary teams for the response
- To develop a costed response plan to support the response
 - The plan should be evidence-based and objective to ensure appropriate allocation of limited resources as determined by epidemiologic data, accumulating science, and risk factors





III. Identify multidisciplinary technical requirements for the response

- Outbreak response requires a range of technical disciplines to respond effectively
- Some of the critical disciplines may be domiciled outside health sector (i.e. hence the need for effective multisectoral coordination)
- Core disciplines for most disease outbreaks include: 3C+SLP, and others (e.g. research and innovation, OLS, etc)





Fig 2. Organogram for outbreak response (sample)







IV. Determine resource requirements for the response

- Infrastructure
 - EOC/Meeting room(s))
- $\boldsymbol{\cdot}$ Technical and support staff across the relevant disciplines
- Logistics and equipment
 - Audio/video conferencing facilities
 - IT solutions/equipment
 - Transport
- Financial resources





Fig 3. WHO emergency operations center (example)







VI. Monitor the response efforts

- Monitoring instruments include:
 - Routine epidemiological updates for evolution of the outbreak in time, place and person
 - M&E tools for implementation of response activities and utilization of resources
 - Intra-action reviews





Fig 4. Routine epidemiological updates (example) Confirmed cases by date of notification

- Since 1 Jan 2022, cases reported to WHO from 102 (1 new) Member States / territories across all 6 WHO regions
- As of 06 September 2022, at 17h CEST, a total of 52,997 laboratory confirmed cases (5029 new) including 18 deaths (3 new), have been reported
- Number of new weekly cases has decreased by 25.5% compared to







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