Ontario

Ministry of Health

Mpox in 2023: Information for Clinicians

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There have been new cases of mpox in Ontario since January 2023 with no clear epidemiological link, and cases continue to occur globally.

Mild and subclinical infections are suspected to be the cause of ongoing transmission. Clinicians should keep mpox on their differential diagnosis and, have a low threshold to test in risk groups with compatible signs/symptoms.

Individuals should continue to receive first and second dose vaccination to ensure optimal protection. Booster doses are not recommended at this time.

Education

The Gay Men's Sexual Health Alliance website (www.gmsh.ca) provides **patient friendly** resources to learn more about mpox.

Epidemiology

- While there has been a significant decline in mpox cases globally, more than 20 countries have reported new cases over the past few weeks.
- There have been several new cases of mpox reported in Ontario recently. No epidemiological links between cases have been identified and no cases reported international travel.
- The main route of mpox virus transmission is direct close contact (skin-to-skin), particularly through sexual contact. Other routes of transmission, including respiratory transmission and close but non-direct contact (i.e., non-sexual household contacts) has not been observed in Ontario.
- Mpox has mainly, but not exclusively, affected gay, bisexual, and men who have sex with men (gbMSM) who have more than one, new, and/or anonymous

sexual partners. There have not been any cases of mpox in children reported in Canada and few cases among cis-gender women.
    - Note that a sizable proportion of cases have HIV infection and may have concomitant sexually transmitted infections.

Vaccination

- Imvamune® (authorized in Canada for protection against mpox) is a two-dose series, spaced apart by at least 28 days. Booster doses are not recommended at this time. Recommendations from the National Advisory Committee on Immunization (NACI) are pending. In Ontario, as of the end of February 2023, less than 20% of people who received a first dose of Imvamune® have received a 2nd dose of vaccine.
    - Note that delays between doses of a vaccine series do not require restarting the series.
    - Since 2nd doses were originally not available due to unknown evolution of the outbreak and limited vaccine supply procured for emergency use, many at-risk individuals may not be aware that a second dose is required to maintain protection.
- People with a history of smallpox vaccine should receive 1 dose of Imvamune®.
- Eligibility for Imvamune® for pre-exposure vaccination in Ontario is as follows:
    - Two-Spirit, non-binary, transgender, cisgender, intersex, or gender-queer individuals who self-identify or have sexual partners who self-identify as belonging to the gay, bisexual, pansexual and other men who have sex with men (gbMSM) community AND at least one of the following:
        - Had a confirmed sexually transmitted infection (STI) within the last year;
        - Have or are planning to have two or more sexual partners or are in a relationship where at least one of the partners may have other sexual partners;
        - Have attended venues for sexual contact (e.g., bathhouses, sex clubs) recently or may be planning to, or who work/volunteer in these settings;
        - Have had anonymous sex (e.g., using hookup apps) or may be planning to; and/or

        - Are a sexual contact of an individual who engages in sex work.
    - Individuals who self-identify as engaging in sex work or are planning to, regardless of self-identified sex or gender.
    - Research laboratory employees working directly with replicating orthopoxviruses.
    - Household and/or sexual contacts of those identified for pre-exposure vaccination eligibility in parts (1) and (2) above **AND** who are moderately to severely immunocompromised or pregnant.
- Recent Ontario data have shown that persons who have received at least one dose of Imvamune® are less likely to report severe symptoms and to require hospitalization than persons who have not been vaccinated.
- Recent studies have shown vaccine effectiveness to be between 66-83% for patients with a 2 dose vaccine series.
- Direct your eligible patients (see below) to this website for a list of clinics where they can book their vaccine appointment. Vaccine appointments are available throughout Ontario.
- With increased travel occurring and anticipated increases over the coming months and into the summer, it is strongly recommended that eligible individuals complete their Imvamune® series at least a couple of weeks prior to traveling.

Clinical Presentation & Testing

- Mpox has a broad range of clinical presentations with common symptoms that include fever, new rash/lesions in the mouth, genital, and/or peri-anal region, rectal pain, lymphadenopathy.
    - Emerging evidence suggests that the clinical presentation of mpox in vaccinated individuals may be more mild or subclinical so in at-risk groups, use a lower threshold to test.
- In the at-risk groups mentioned above - test for mpox virus in those with compatible symptoms, and consider screening and testing for other STIs.
- Specimens should be taken of skin lesions in patients with a rash; rectal swabs for those with rectal pain/lesions. Nasopharyngeal (NP) swabs can be used when a patient does not have a rash but other compartible signs and symptoms.

- In risk groups presenting with skin lesions, depending on the clinical presentation, diagnostic tests should include mpox in addition to testing for syphilis, HSV, VZV.
- Children with a rash compatible with hand foot and mouth do not need mpox testing unless they have risk factors (e.g., contact with a case).

Isolation and Public Health Advice

If you strongly suspect mpox, please call your local public health unit to report.

- Self-isolation for patients in whom you are considering mpox as part of your differential diagnosis is dependent on their clinical presentation:
    - Patients with fever and/or respiratory symptoms are required to self-isolate. They should also be advised to avoid direct contact with others including sexual activity.
    - Patients who only have skin lesions that can be covered (e.g., clothing, bandages) are not required to strictly self-isolate but should avoid direct contact with others, including sexual activity, until the lesions have fully healed.
- Patients with a negative mpox virus test can discontinue self-isolation but should be advised to continue to avoid lesions coming into direct contact with others.
- Public Health will follow-up with patients who are positive for mpox.

Treatment

- The anti-viral tecovirimat (TPoxx®) is available for mpox patients at risk of (e.g., severely immunocompromised) or experiencing severe disease.
- The efficacy of tecovirimat in the treatment of mpox has not been formally evaluated in clinical trials, but use is reasonable on the basis of its efficacy against smallpox, animal data, and unpublished data in humans with mpox.
- A randomized controlled trial of tecovirimat (PLATINUM-CAN) is launching in Canada very soon (https://clinicaltrials.gov/ct2/show/NCT05534165); clinicians seeing patients with mpox of any severity are encouraged to refer patients to study sites to be considered for participation. In Toronto, contact darrell.tan@unityhealth.to or sharon.walmsley@uhn.ca.

- Given the limited supply of TPoxx® available in Ontario, TPoxx® should be requested based on the eligibility criteria. Refer to the ministry's website on mpox for healthcare professionals for resources regarding TPoxx®.
- Clinicians need to request TPoxx® by contacting the Vaccine Policy & Programs Branch at vaccinesupplyandlogistics@ontario.ca