
BC MONKEYPOX ADVISORY GUIDANCE GROUP

Guidance for the Treatment of Monkeypox

October 18, 2022

SUMMARY:

After a thorough review of the evidence, stakeholder feedback and deliberation, the following recommendations have been proposed by the Monkeypox Advisory Guidance Group.

Treatment with **oral tecovirimat (TPOXX™)** can be considered in consultation with an expert from the Monkeypox Expert Panel (see operational considerations below) in the following patients with confirmed monkeypox infection:

- Individuals (adults and children irrespective of age or smallpox vaccine status) with severe disease defined as either:
 - Requiring hospitalization or hospital-level care for monkeypox (e.g., due to severe, extensive and wide-spread lesions*) OR
 - Requiring hospitalization or hospital-level care for complications directly related to monkeypox (e.g., encephalitis, sepsis, pneumonia), OR
 - Significantly interfering with normal physiological body function (e.g., oral food intake, hydration, uncontrollable pain, or severe pain with bowel movements or urination)

*Note: Many patients will present with genital, anal and/or oral lesions, as well as conjunctivitis. The location of lesions itself is not an indication for treatment. Treatment decisions should be based on the severity of the presentation.

OR

- Individuals who may be at high risk[#] of developing severe disease due to:
 - Severe immunocompromise such as:
 - human immunodeficiency virus with a CD4 count < 200 cells/mm³, or a diagnosis of acquired immune deficiency syndrome for adults or a diagnosis of HIV for children
 - current treatment for a hematological malignancy such as leukemia or lymphoma
 - bone marrow/hematopoietic stem cell transplantation in the past 2 years
 - generalized malignancy (e.g., solid tumor or metastatic cancer)
 - solid organ transplantation
 - therapy with severely immunosuppressing agents (e.g., alkylating agents, antimetabolites, radiation, tumor necrosis factor inhibitors, high-dose corticosteroids, treatment for graft-versus-host disease or immunosuppressive

therapy for an autoimmune disease with immunodeficiency as a clinical component)

- Neonates and infants < 1 year old
- Children aged 1-17 years with immunocompromising conditions (e.g., HIV, cancer, currently taking immunosuppressive therapy)
- Pregnant persons

#Clinical judgement must be used when offering tecovirimat to non-severely ill patients who have been vaccinated with the smallpox vaccine (Vaccinia; Imvamune). Such patients are less likely to develop severe disease; however, the impact of smallpox vaccination in high-risk individuals infected with the recent strain of monkeypox has not been well characterized. In addition, vaccine timing (recent vs. decades ago) and immune status (during illness and at the time of vaccination) may impact vaccine response and must be strongly considered.

The **recommended tecovirimat dosing** is 600mg PO BID for adults weighing 40-124kg and 600mg PO TID for adults weighing 125kg or more.

The **recommended duration of initial treatment is 7 days**, with reassessment for possibility of continued therapy for a total of 14 days. Treatment may be stopped after 7 days in those who are not severely ill, who are improving clinically and/or at the clinician's judgement. Treatment should be extended to 14 days in pregnant patients, those who remain hospitalized for monkeypox, those who are not experiencing improvement/experiencing progression, severely immunocompromised individuals exhibiting new lesions while on treatment, and/or at the clinician's judgement.

Pediatric dosing is weight-based: 13 to < 25kg: 200mg PO BID; 25 to < 40kg: 400mg PO BID; 40kg and over: refer to adult dosing. Tecovirimat capsules may be opened, mixed with food, or dissolved in liquid and given via feeding tubes. An IV formulation may be applied for through the Special Access Program for those who are unable to take PO medications or for neonates between 3-13kg.

Treatment with cidofovir and brincidofovir is not routinely recommended due to lower efficacy demonstrated in animal studies and/or human case reports, and significant toxicities where the benefit is unlikely to outweigh the risk.

Treatment with Vaccinia Immunoglobulin is not routinely recommended due to absence of any efficacy or safety data in animals or humans for treatment of monkeypox.

OPERATIONAL CONSIDERATIONS:

Ordering Approval Process

The Group discussed the prescribing process for approval. It was agreed that a joint collaborative prescribing process would be implemented, so that expertise across BC can be leveraged to provide patients with the highest quality care while ensuring appropriate use of a scarce resource. The current process considers the prevalence of monkeypox in BC, current drug supply and workload of consulting clinicians to review cases.

Ethic Statement Regarding Prescribing Process: The proposed joint prescribing process ensures that allocation decisions are not made at the bedside and promotes openness, transparency, consistency, and accountability. To the degree possible, preferential access to a scarce drug therapy should be given to patients with both the highest need and the greatest likelihood of benefit, maximizing the health benefits of the population. In order to maximize the health benefits to the population, it is important to prioritize the access of proven scarce drugs therapies in a manner that does not exacerbate the impact of monkeypox on specific populations. Where social inequities result in a greater burden on some populations or groups, every effort would be given to lessen the impact of these inequities.

The Group agreed that a second expert should be involved in each case where tecovirimat is being prescribed – the health authority-based infectious diseases (HA ID) staff member on-call (or a medical microbiologist or internal medicine physician if an ID staff member on-call is not available) would liaise with one neutral member of the Monkeypox Expert Panel from a different health authority, typically someone with experience in STI/HIV and monkeypox. The proposed process, which was supported by CTRAWG would therefore be as follows:

Request for Tecovirimat in Patients Who Meet Criteria

1. Most responsible physician (MRP) consults health authority Infectious Diseases (HA ID) physician on-call (or medical microbiologist or internal medicine physician, if an ID physician is not available) when tecovirimat treatment is being considered for inpatients or outpatients.
2. For patient who appears to meet criteria, HA ID physician on-call (or medical microbiologist or internal medicine physician) emails a Tecovirimat Request Consultation Form to poxvirustherapy@vch.ca to set-up a case review session with a physician member of the Monkeypox Expert Panel.

The Tecovirimat Request Consultation Form contains the following fields to be completed:

- i. Patient initials
- ii. Personal health number
- iii. Clinical details to support criteria for tecovirimat use
- iv. Name and contact phone number of MRP and consulting ID physician (or medical microbiologist or internal medicine physician)
- v. Hospital site and health authority requesting tecovirimat
- vi. Links to clinical guidance and resources.

The poxvirustherapy@vch.ca mailbox is monitored by members of the BC Monkeypox Advisory Guidance Group who have experience in managing monkeypox and have stepped forward to support their provincial colleagues in managing tecovirimat.

All Panel members will receive emails sent to poxvirustherapy@vch.ca.

3. When an email request is received, any individual physician of the Monkeypox Expert Panel who is able to review the case can self-identify. They would then contact the requesting HA ID physician (or medical microbiologist or internal medicine physician) who is requesting therapy, review the case and come to an agreement on whether treatment is indicated.

The review process is offered from 09:00 to 17:00, 7-days a week; as treatment is generally not considered urgent, requests after-hours will be assessed the following day.

4. Once the two physicians agree to prescribe treatment:
 - i. The consultant physician on the Monkeypox Expert Panel sends an email to the poxvirustherapy@vch.ca inbox or a message via Signal to communicate that treatment has been approved. This step alerts all other members, particularly those from Pharmacy. Pharmacy members can then communicate with their department and make the necessary arrangements to manage and replace inventory.
 - a. For hospitalized inpatients, the requesting HA ID physician on-call (or medical microbiologist or internal medicine physician) writes the order and indicates that the tecovirimat has been “Approved by the Monkeypox Expert Panel.” This physician also alerts the local pharmacy leadership at their health authority to make arrangements to dispense the health authority-stocked supply of tecovirimat.
 - b. “For ambulatory outpatients, the requesting HA ID physician on-call (or medical microbiologist or internal medicine physician) writes an outpatient prescription and indicates that the tecovirimat has been “Approved by the Monkeypox Expert Panel.” The prescription is then faxed to the Product Distribution Centre (PDC) at 604-941-0532 for dispensing and delivery to patient’s home. Please make sure patient’s contact information, including address and phone number are written on the prescription.” Please note PDC is closed on weekends and statutory holidays..

Pharmacy Process

For hospitalized inpatients

1. Pharmacy receives order for tecovirimat from MRP or HA ID physician/consultant.
 - i. If order states, “Approved by the Monkeypox Expert Panel,” Pharmacy will proceed to process order.
 - ii. If approval is not documented, pharmacist contacts prescriber to inquire whether the Monkeypox Expert Panel has been consulted or informs MRP to contact ID on-call (or medical microbiologist or internal medicine physician) to initiate the review process using the Tecovirimat Request Consultation Form.
2. Pharmacy processes the approved order.
 - i. For health authority-based tecovirimat depot sites:
(i.e., Fraser Health Authority – Langley Pharmacy Production Centre; Interior Health Authority –

Kelowna Pharmacy Warehouse; Northern Health Authority – University Hospital Northern BC; Vancouver Coastal Health/Providence Health Care – Vancouver General Hospital; Vancouver Island Health Authority – Royal Jubilee Hospital)

Local health authority pharmacist releases drug if approval has been obtained, and contacts angus.kinkade@phsa.ca or jana.short@fraserhealth.ca to make arrangements for supply replenishment from Langley Pharmacy Drug Distribution Centre.

(Note: Depot site is to arrange own delivery service to pick-up supplies from Langley Pharmacy Production Centre).

- ii. For non-satellite depot sites: Local health authority pharmacist contacts their health authority-specific depot site to obtain tecovirimat and arrange own delivery service to pick-up supplies. The health authority depot site then contacts angus.kinkade@phsa.ca or jana.short@fraserhealth.ca to make arrangements for supply replenishment from Langley Pharmacy Drug Distribution Centre.
3. Local health authority Pharmacy will record the personal health number, patient initials, gender, and birthdate of the patient and submit this information to the Ministry of Health and the Special Access Program if requested.

For ambulatory outpatients

1. For ambulatory outpatients, tecovirimat must be dispensed by the Product Distribution Centre and documented through PharmaNet.
2. PDC receives the outpatient prescription for tecovirimat from MRP or HA ID physician/consultant. Ensure prescription has been “Approved by the Monkeypox Expert Panel”
3. PDC processes tecovirimat prescription.
 - i. Tecovirimat 200 mg capsules (SAP) should be entered with the PIN 66128341 and is covered under Plan Z. The [Full Payment Policy](#) applies to tecovirimat and providers may not charge patients any costs associated with the dispense of Plan Z products. Drug cost should be entered as \$0.01 and the dispensing fee should be a maximum of \$10.

Note: Plan ZE coverage is available for out-of-province patients or for those in the waiting period for MSP approval. To apply, the prescriber or pharmacist calls Health Insurance BC at: 604-682-7120 or 1-800-554-0225. The following will be required:

- College ID
- Patient’s name, personal health number (if applicable), date of birth and address
- Confirmation that the patient requires treatment in B.C.

- Confirmation that the patient has current medical coverage in another Canadian province or territory
 - Patient's out-of-province medical plan number, if available
- ii. Community pharmacist manually checks for drug interactions with tecovirimat prior to dispensing.
4. PDC will record the personal health number, patient initials, gender, and birthdate of the patient and submit this information to the Ministry of Health and the Special Access Program if requested.

All Division of Infectious Diseases members who are part of the Monkeypox Advisory and Guidance Group need to inform their Division of this guidance and tecovirimat request process, so that each member is familiar with the requirements for prescribing and is comfortable in making therapeutic decisions for treatment.