Tecovirimat for monkeypox

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1 Tecovirimat can be prescribed off label for treatment of monkeypox (MPXV) infection

Tecovirimat is an antiviral drug with activity against orthopoxviruses.[1] It was approved by Health Canada for the treatment of smallpox in November 2021 and approved in other jurisdictions for the treatment of cowpox, MPXV and smallpox.[2] Studies involving animals infected with smallpox showed improved survival, clinical symptoms and viral levels with tecovirimat treatment.[1,3] Evidence of efficacy against MPXV derives from animal studies; human experience is limited to safety studies and case reports.[3,4]

2 Treatment should be prioritized for patients with severe disease

In a review of 528 infections across 16 countries from April to June 2022, 13% of patients with MPXV were admitted to hospital for presentations that included severe anorectal pain, myocarditis, superimposed soft tissue infection or acute kidney injury.[2,4] Encephalitis or hemorrhagic disease were other severe complications.[2]

3 Supplies are limited and access requires provincial application

Health care providers can request access to tecovirimat based on clinical judgment and patient consent.[2] Local resources and provincial processes to obtain tecovirimat are similar across Canada and provide helpful guidance to providers.[2] Reporting of outcomes to Health Canada is mandated upon treatment completion.[2]

4 The treatment duration is 14 days

Tecovirimat dosing is 200 mg (for patients 13–25 kg), 400 mg (for patients 25–40 kg) and 600 mg (for patients ≥ 40 kg) orally twice daily.[2] Tecovirimat should be prescribed with high-fat meals (25 g of fat) to increase its absorption by 40%–50%.[5]

5 Tecovirimat is generally well tolerated

There were no notable safety concerns and only mild adverse events reported in a placebo-controlled safety trial involving 449 adult volunteers (90 received placebo, 359 received tecovirimat).[3] Common adverse effects include headache, nausea and gastrointestinal symptoms.[2] The risk of clinically relevant drug interactions is likely low owing to the limited treatment duration and because tecovirimat is only a weak inhibitor of CYP2C8 and CYP2C19, and a weak inducer of CYP3A4.[1] In the product monograph, QTc prolongation has been reported.[5]

References

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