

ADVISORY – COMMUNICABLE DISEASE AND PEOPLE FROM UKRAINE

Date: March 22, 2022

Issue:

- As of March 20, 2022, over 3 million Ukrainians have fled Ukraine as the result of the invasion by the Russian Federation.¹
- The United Nations estimates 7 million Ukrainians will be internally displaced and an additional 4 million will flee the country.²
- While it is anticipated that most Ukrainians will choose to stay in the European Union, up to 60,000 people from Ukraine may be arriving in BC as part of the humanitarian effort.
- Extreme conflict conditions, confinement in shelters, infrastructure damage, low vaccination rates, and health care service disruptions in Ukraine increase the affected population's vulnerability to communicable diseases.
- This advisory is to support clinicians to care for Ukrainian people at risk for communicable diseases, provide information on immunization, and assist with health care access.

Recommendations for Infection Prevention and Control

- The conflict conditions in Ukraine make hygiene and other basic health measures difficult to maintain, increasing the affected population's vulnerability to communicable diseases, including COVID-19, measles, HIV, polio, and respiratory and diarrheal diseases.³
- As of February 2022, approximately 34% of Ukraine population are fully vaccinated against COVID-19 and 36% of the population in Ukraine have received one dose.⁴
- Tuberculosis in Ukraine continues to be a major public health challenge.⁵
- Clinicians should be aware of and take appropriate steps to address the potential communicable diseases among people evacuating from Ukraine to BC, including those listed in the following table and Appendix A:

| | | |
|--------------------------------------|-----------------|----------------------------|
| ▪ COVID-19 | ▪ Leptospirosis | ▪ Rotavirus |
| ▪ Cholera | ▪ Lyme Disease | ▪ Rubella |
| ▪ Crimean-Congo Hemorrhagic Fever | ▪ Measles | ▪ Tetanus |
| ▪ Diphtheria | ▪ Mumps | ▪ Tick-borne Encephalitis |
| ▪ Hantavirus | ▪ Pertussis | ▪ Tuberculosis |
| ▪ Hepatitis A, B, C | ▪ Polio | ▪ Varicella |
| ▪ HIV/AIDS | ▪ Rabies | ▪ Viral Diarrheal Diseases |

¹ United Nations High Commissioner for Refugees Operational Data Portal (ODP). Accessed March 21, 2022 from <https://data2.unhcr.org/en/situations/ukraine>.

² European Centre for Disease Prevention and Control (ECDC). (2022, March 8). Operational public health considerations for the prevention and control of infectious diseases in the context of Russia's aggression towards Ukraine. <https://www.quotidianosanita.it/allegati/allegato2293963.pdf>

³ World Health Organization (WHO). (March 2022). Emergency appeal: Ukraine and neighbouring countries. [who-emergency-appeal---ukraine-and-neighbouring-countries.pdf](https://www.who.int/emergencies/ukraine-and-neighbouring-countries)

⁴ Health Cluster Ukraine. (2022, March 3). Ukraine: Public health situation analysis.

<https://reliefweb.int/sites/reliefweb.int/files/resources/ukraine-phsa-shortform-030322.pdf>

⁵ WHO Regional Office for Europe. (2021, August 30). Ending tuberculosis: How health workers can make a difference. <https://www.euro.who.int/en/countries/ukraine/news/news/2021/8/ending-tuberculosis-how-health-workers-can-make-a-difference>

- The majority of communicable diseases listed above are reportable in BC. Clinicians must follow existing processes for notifying public health. For further instruction and guidance refer to the following: [List of reportable diseases in BC](#); [BC Communicable Disease Manual](#); and [Case reporting forms](#).
- Clinicians should provide evacuees and those supporting resettlement with a list of symptoms to look out for and ask them to alert their health-care provider if symptoms develop (e.g., by phone).
- When required, transport of patients with suspected or confirmed illness to health care settings must be preceded by notification of BC Emergency Health Services (BCEHS) and the receiving facility to ensure appropriate precautions are in place.

Immunization Recommendations

- Immigration, Refugees and Citizenship Canada (IRCC) introduced new immigrant streams for Ukrainians who want to come to Canada temporarily or permanently. A national interest exemption has also been issued to allow unvaccinated and partially vaccinated Ukrainian nationals with temporary resident visa/permits to enter Canada. This also applies to people who are vaccinated with vaccines not currently recognized by Canada.⁶
- Many Ukrainians, particularly children, are at increased risk of vaccine-preventable diseases due to years of low immunization coverage.⁷ As of July 2021, 41% of children aged 6 and under were vaccinated against measles, mumps and rubella; 32-38% vaccinated against pertussis, diphtheria, and tetanus; and 38-40% vaccinated against polio.⁸
- Clinicians should review an evacuee's entire vaccination history and recommend any missing vaccines, including the measles, mumps, and rubella (MMR), polio, COVID-19, hepatitis A, and seasonal influenza vaccines.
- Communication tools in the appropriate language should be provided on the benefits of vaccination, recommended vaccine(s), and possible side effects. The US CDC has health care resources in [Ukrainian](#), for example.
- Individuals supporting the resettlement effort should ideally be vaccinated against hepatitis A, in addition to being current on routine immunizations. In B.C., hepatitis A vaccine is recommended and provided free to people at high risk of infection. This includes those in close contact with someone infected by hepatitis A and those who may have been exposed to hepatitis A.

Health Care Access

- For individuals arriving under the Canada-Ukraine Authorization for Emergency Travel, the details of provincial health care plan coverage are being determined and will be publicly communicated by government as soon as possible.

Sincerely,
 Dr. Martin Lavoie
 Deputy Provincial Health Officer
 Office of the Provincial Health Officer

⁶ Government of Canada. (2022, March 3). Canada to welcome those fleeing the war in Ukraine. <https://www.canada.ca/en/immigration-refugees-citizenship/news/2022/03/canada-to-welcome-those-fleeing-the-war-in-ukraine.html>

⁷ CDC. (March 2022). CDC in Ukraine. <https://www.cdc.gov/globalhealth/countries/ukraine/pdf/ukraine-2022.pdf>

⁸ Ukraine Public Health Centre. (2021, August 8). We urge parents to make up for missed vaccinations of children by age. <https://www.phc.org.ua/news/zaklikaemo-batkiv-nadoluzhiti-propuscheni-sheplennya-ditey-za-vikom-0>

**Appendix A: Clinical Resources – Communicable Diseases Known to Impact
People from Ukraine**

| Communicable Disease | Signs and Symptoms | Resources |
|---|---|---|
| COVID-19 | <ul style="list-style-type: none"> • New or worsening cough • Shortness of breath or difficulty breathing • Temperature equal to or more than 38°C • Feeling feverish • Sore throat • Chills • Fatigue or weakness • Muscle or body aches • New loss of smell or taste • Headache • Abdominal pain, diarrhea and/or vomiting • Feeling very unwell <p><i>Note: Symptoms of COVID-19 can vary from person to person, in different age groups and depending on the COVID-19 variant. Ukraine has one of the lowest COVID-19 vaccination rates in Europe. At this time, undetected COVID-19 transmission is significant.</i></p> | <p>www.bccdc.ca/health-info/diseases-conditions/covid-19/about-covid-19/symptoms</p> <p>www.oecd.org/eurasia/competitiveness-programme/eastern-partners/COVID-19-CRISIS-IN-UKRAINE.pdf</p> |
| Cholera | <ul style="list-style-type: none"> • Mild to moderate watery diarrhea • Nausea and vomiting <p>Severe:</p> <ul style="list-style-type: none"> • Profuse diarrhea and/or vomiting • Signs of dehydration <p><i>Note: An outbreak and cases of cholera have been identified in Ukraine in recent years and there is current concern of a resurgence.</i></p> | <p>www.bccdc.ca/health-info/diseases-conditions/cholera</p> <p>WHO-EURO-2022-5152-44915-63936-eng.pdf</p> |
| Crimean-Congo Hemorrhagic Fever (CCHF) | <ul style="list-style-type: none"> • Fever (high) • Headache • Back and/or joint pain • Abdominal pain and/or vomiting • Red throat and petechiae (red spots) on palate • Red eyes and flushed face <p>Progressed illness:</p> <ul style="list-style-type: none"> • Severe bruising • Nosebleeds • Uncontrollable bleeding at injection sites <p><i>Note: CCHF is a tick-borne virus that is endemic in Ukraine. CCHF can be transmitted from one infected person to another by contact with infectious blood or body fluids.</i></p> | <p>www.canada.ca/en/public-health/services/laboratory-biosafety-biosecurity/pathogen-safety-data-sheets-risk-assessment/crimean-congo-haemorrhagic-fever-virus.html</p> <p>www.cdc.gov/vhf/crimean-congo/outbreaks/distribution-map.html</p> |

| Communicable Disease | Signs and Symptoms | Resources |
|---|--|--|
| Diphtheria | <ul style="list-style-type: none"> • Moderate to severe sore throat • Swollen and sore lymph nodes in the neck • Swelling of the neck • Heart and nervous system complications • If infects skin – lesions will appear | www.bccdc.ca/health-info/diseases-conditions/diphtheria |
| Hantavirus Pulmonary Syndrome (HPS) / Hantavirus | <ul style="list-style-type: none"> • Fever and/or chills • Fatigue, headache, and/or dizziness • Muscle aches (especially in thighs, hips, back and sometimes shoulders) • Abdominal pain, nausea, vomiting and/or diarrhea | www.bccdc.ca/health-info/diseases-conditions/hantavirus-pulmonary-syndrome-hps |
| Hepatitis A | <ul style="list-style-type: none"> • Fever • Malaise and/or tiredness (similar to a flu) • Loss of appetite and/or vomiting • Dark urine and/or pale feces • Sore feeling in upper-right stomach area • Jaundice | www.bccdc.ca/health-info/diseases-conditions/hepatitis-a |
| Hepatitis B | <ul style="list-style-type: none"> • Fatigue • Loss of appetite • Tenderness in upper right side of stomach • Dark urine and/or pale stools • Jaundice | www.bccdc.ca/health-info/diseases-conditions/hepatitis-b |
| Hepatitis C | <ul style="list-style-type: none"> • Fever • Tiredness • Jaundice • Abdominal pain and/or nausea • Loss of appetite • Dark urine | www.bccdc.ca/health-info/diseases-conditions/hepatitis-c |
| HIV / AIDS | <ul style="list-style-type: none"> • Fever • Sore throat • Headache • Muscle aches and joint pain • Swollen glands <p><i>Note: Ukraine has the second-largest HIV epidemic in Eastern Europe and Central Asia.</i></p> | www.bccdc.ca/health-info/diseases-conditions/hiv-aids www.unaids.org/sites/default/files/country/documents/UKR_2020_countryreport.pdf |
| Leptospirosis | <ul style="list-style-type: none"> • Fever, chills and/or red eyes • Headaches and/or muscle aches • Stomach pain, diarrhea and/or vomiting • Jaundice • Rash (sometimes) | wwwnc.cdc.gov/travel/diseases/leptospirosis |
| Lyme Disease | <ul style="list-style-type: none"> • Skin rash at site of tick bite • Fever • Fatigue and/or headache • Muscle and joint pains • Weakness or paralysis of face muscles | www.bccdc.ca/health-info/diseases-conditions/lyme-disease-borrelia-burgdorferi-infection |

| Communicable Disease | Signs and Symptoms | Resources |
|---|--|---|
| Measles | <ul style="list-style-type: none"> • Fever, cough, runny nose, and watery inflamed eyes • Small red spots in the mouth with white or bluish white centers • Dusky red, blotchy rash that begins on the face and spreads all over the body • Rash that begins on third to seventh day of illness and lasts 4 to 7 days | www.bccdc.ca/health-info/diseases-conditions/measles |
| Mumps | <ul style="list-style-type: none"> • Fever • Headache • Swollen and painful salivary glands • Swollen and painful testicles/ovaries <p><i>Note: Up to 1 in 5 people with mumps are asymptomatic but can still spread the virus.</i></p> | www.bccdc.ca/health-info/diseases-conditions/mumps |
| Pertussis (Whooping Cough) | <ul style="list-style-type: none"> • Fever (low-grade) • Sneezing • Runny nose • Worsening cough (i.e., coughing spells) | www.bccdc.ca/health-info/diseases-conditions/whooping-cough-pertussis |
| Polio or Poliomyelitis / Vaccine-Derived Poliovirus (VDPV) | <ul style="list-style-type: none"> • Fever • Tiredness • Headache • Nausea and vomiting • Severe muscle pain and spasms • Stiffness of the neck and back • Weakness of one or more arms or legs • Paralysis of the face and neck • Paralysis of breathing muscles | www.bccdc.ca/health-info/diseases-conditions/polio |
| Rabies | <ul style="list-style-type: none"> • Fever • Headache • Difficulty swallowing • Excessive drooling, muscle spasms, or weakness • Strange behaviour <p><i>Note: Rabid dogs are commonly found in Ukraine.</i></p> | www.bccdc.ca/health-info/diseases-conditions/rabies https://wwwnc.cdc.gov/travel/destinations/traveler/none/ukraine |
| Rotavirus | <ul style="list-style-type: none"> • Fever • Vomiting and/or stomach pain • Diarrhea (which lasts from 3 to 8 days) <p><i>Note: Most children experience rotavirus for the first time at an early age. Children who are less than 4 months old usually suffer from mild symptoms. Symptoms are most severe in children between 4 and 24 months old. Children from 4 months to 5 years in age can suffer severe dehydration if left untreated.</i></p> | www.canada.ca/en/public-health/services/diseases/rotaviruses/symptoms.html |

| Communicable Disease | Signs and Symptoms | Resources |
|--------------------------------|---|--|
| Rubella | <ul style="list-style-type: none"> • Fever (low-grade) • Tiredness/feeling unwell • Raised, red, pinpoint rash that starts from the face and spreads downwards (lasts 3 to 5 days) • Muscle and joint pain (teens and adults) <p><i>Note: Half of all rubella infections show no symptoms of rash.</i></p> | www.bccdc.ca/health-info/diseases-conditions/german-measles-rubella |
| Tetanus | <ul style="list-style-type: none"> • Muscle spasms in jaw, difficulty opening mouth (“lockjaw”) • Difficulty swallowing or breathing • Seizures | www.bccdc.ca/health-info/diseases-conditions/tetanus |
| Tick-Borne Encephalitis | <ul style="list-style-type: none"> • Fever • Fatigue • Headache and/or muscle pain • Nausea and loss of appetite <p><i>Note: Tick-Borne Encephalitis is present in the Volyn region of Ukraine and along the Crimean Peninsula. Approximately one-third of patients develop severe symptoms.</i></p> | www.iamat.org/country/ukraine/risk/tick-borne-encephalitis |
| Tuberculosis (TB) | <ul style="list-style-type: none"> • Fever, chills and night sweats • Loss of appetite (not hungry) and unexplained weight loss • Weakness or feeling very tired • New or worse cough lasting longer than 3 weeks • Coughing up mucus (sputum), sometimes with blood • Trouble breathing and chest pain <p><i>Note: Signs/symptoms of active TB depend on where in the body it is located. They can begin gradually and worsen over time. Most often TB will live in the lungs.</i></p> | www.bccdc.ca/health-info/diseases-conditions/tuberculosis www.canada.ca/en/public-health/services/diseases/tuberculosis.html#a1 |
| Varicella | <ul style="list-style-type: none"> • Fever and feeling tired before a rash develops • Small, red, flat spots that usually first appear on stomach, back, face, and scalp and then spread to the rest of the body • Spots develop into fluid-filled blisters which are usually less than a quarter inch wide and have a red base • After the blisters break, the open sores will become covered by dry, brown scabs | www.bccdc.ca/health-info/diseases-conditions/chickenpox-varicella |