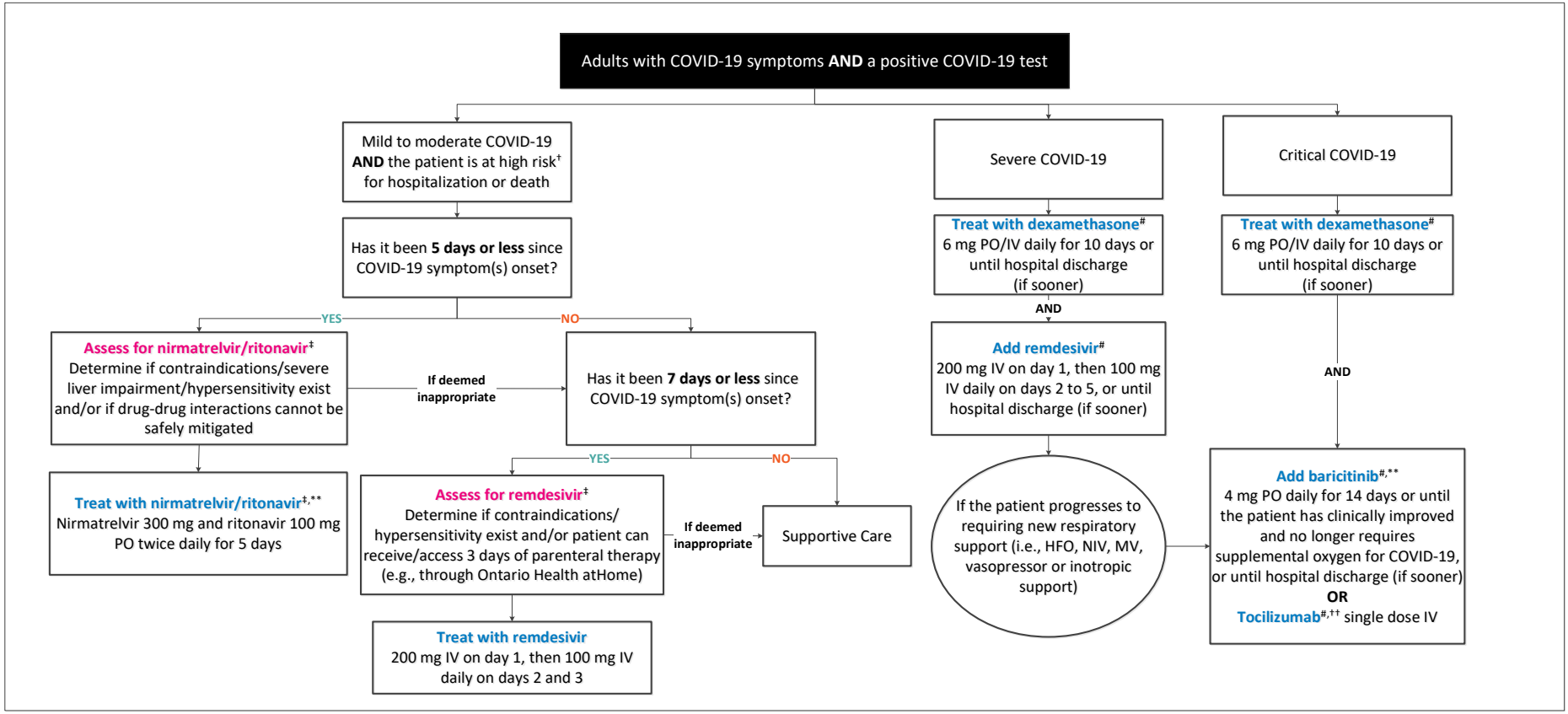
Summary of Recommendations for Drug Therapy for Adults with COVID-19

COVID-19 severity classification

- **Mild COVID-19**: Individuals who have signs and symptoms of COVID-19 AND SpO_2 greater than 92% at rest without supplemental oxygen or no increase in supplemental oxygen from baseline.
- **Moderate COVID-19**: Individuals who have SpO_2 greater than 92% at rest without supplemental oxygen or no increase in supplemental oxygen from baseline AND evidence of lower respiratory disease during clinical assessment or imaging.
- **Severe COVID-19**: Individuals who newly require supplemental oxygen* OR individuals who require an increase in supplemental oxygen* from baseline, with or without worsening or progressive signs and symptoms of COVID-19.
- **Critical COVID-19**: Individuals who require any new respiratory support* (e.g., high flow oxygen [HFO], non-invasive ventilation [NIV], mechanical ventilation [MV], extracorporeal membrane oxygenation [ECMO]), vasopressor or inotropic support.

*Supplemental oxygen, respiratory, vasopressor or inotropic support due to COVID-19 and not other underlying conditions.

Treatment algorithm for COVID-19



† Refer to Ontario Health's description for identifying individuals with risk factors associated with more severe outcomes where antiviral therapy is recommended or many be considered.

‡ Refer to Ontario Health's Recommendations for Antiviral Therapy of Adults with Mild to Moderate COVID-19 for additional drug information.

Refer to Ontario Health's Recommendations for Antiviral Therapy of Adults with Severe to Critical COVID-19 for additional drug information.

** Dose adjust for renal impairment.

†† Tocilizumab weight-based dose banding: 8 mg/kg for weight less than or equal to 40 kg; 400 mg for weight greater than 40 kg to less than or equal to 65 kg; 600 mg for weight greater than 65 kg to less than or equal to 90 kg; 800 mg for weight greater than 90 kg.

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Ontario Health

Drug therapy recommendations

- Patients must have COVID-19 symptoms AND a positive test for COVID-19 (based on polymerase chain reaction, rapid molecular or rapid antigen test result) prior to initiating drug therapy.
- **For adults with mild to moderate COVID-19 AND at high risk[†] for hospitalization or death:**
  - **Nirmatrelvir/ritonavir (Paxlovid)** is the preferred first-line therapy. Treatment should start within 5 days of symptom onset (nirmatrelvir 300 mg and ritonavir 100 mg PO twice daily for 5 days). Dose adjust for renal impairment.
  - **Remdesivir** is an option if nirmatrelvir/ritonavir cannot be used. Treatment should start within 7 days of symptom onset (200 mg IV on day 1, then 100 mg IV daily on days 2 and 3).
- **For adults with severe to critical COVID-19:**
  - **Dexamethasone** is recommended for all patients with severe or critical COVID-19 (6 mg PO/IV daily for 10 days or until hospital discharge, whichever is sooner).
  - **Remdesivir** is recommended in addition to dexamethasone for all patients with severe COVID-19 (200 mg IV on day 1, then 100 mg IV daily on days 2 to 5, or until hospital discharge, whichever is sooner). In patients with severe COVID-19 who are started on remdesivir but progress to critical COVID-19, the full course of remdesivir should still be completed.
  - **Baricitinib** (4 mg once PO once daily for 14 days, or until the patient has clinically improved and no longer requires supplemental oxygen for COVID-19, or until hospital discharge, whichever is sooner; dose adjust for renal impairment) OR **tocilizumab** (single dose IV) is recommended in addition to dexamethasone for all patients with critical COVID-19 or if patients with severe COVID-19 progress to requiring new respiratory support. Selection between the two drugs will depend on patient-specific factors (e.g., route of administration, contraindications, etc).
- **Treatment should be individualized based on the prescriber assessment of patient risk.**
- Prescribers are encouraged to identify those at high risk of severe outcomes and develop a treatment plan in advance of COVID-19 infection with the patient (e.g., how to access testing and antiviral therapies, identification of contraindications or drug-drug interactions).

[†] Refer to Ontario Health's description for identifying individuals with risk factors associated with more severe outcomes where antiviral therapy is recommended or may be considered.

Risk factors associated with more severe outcomes where antiviral therapy is RECOMMENDED for mild to moderate COVID-19

- **Age 65 years and older** (regardless of vaccine status, with no other risk factors)
- **Immunocompromised Status** (age 18 years and older, regardless of vaccine status or prior COVID-19 infection)
  - Advanced untreated human immunodeficiency virus (HIV) or treated HIV with a CD4 count equal or less than 200/mm^3 or CD4 fraction equal or less than 15%
  - Bone marrow transplant or stem cell transplant
  - Solid organ transplant
  - Have active hematological malignancy or recently received treatment for hematological malignancy (e.g., have received treatment with any anti-CD20 agents or B-cell depleting agents in the last 2 years)
  - Chimeric antigen receptor (CAR) T-cell therapy in last 6 months
  - Treatment for cancer (including solid tumors), limited to: systemic therapy in the last 6 months (e.g., chemotherapy, molecular therapy, immunotherapy, targeted therapies, monoclonal antibodies, excluding those receiving adjunctive hormonal therapy) or radiation therapy in the last 3 months
  - Prednisone use equal to or greater than 20 mg/day (or corticosteroid equivalent) for 14 days or more, or other moderately or severely immunosuppressive therapies (e.g., alkylating agents)
  - Primary immunodeficiencies (e.g., hypogammaglobulinemia, combined immune deficiencies affecting T-cells, immune dysregulation, type 1 interferon defects caused by a genetic primary immunodeficiency disorder or secondary to anti-interferon autoantibodies, diagnosed by an immunologist and requires ongoing immunoglobulin replacement therapy, primary immunodeficiency with a confirmed genetic cause)

Risk factors associated with more severe outcomes where antiviral therapy MAY BE CONSIDERED for mild to moderate COVID-19

The risk for more severe COVID-19 outcomes increases with the number of risk factors: **lower** (0-1), **moderate** (2), or **higher** (3 or more). Consider the quantity of underlying medical conditions and how controlled the medical conditions are. Not all medical conditions carry the same risk.

- **Vaccination Status**
  - Have never received a COVID-19 vaccine
- **Medical Conditions**
  - Active tuberculosis (treated or untreated)
  - Cerebrovascular disease
  - Chronic kidney disease (CKD), especially CKD Stage 4 or 5 and dialysis
  - Chronic lung diseases, limited to: asthma, bronchiectasis, chronic obstructive pulmonary disease, interstitial lung disease, pulmonary embolism, pulmonary hypertension
  - Chronic liver diseases, limited to: cirrhosis, non-alcoholic fatty liver disease, alcoholic liver disease, autoimmune hepatitis
  - Cystic fibrosis
  - Diabetes mellitus, type 1 or type 2
  - Disabilities and developmental delay, including Down syndrome
  - Heart conditions (e.g., heart failure, coronary artery disease, cardiomyopathies)
  - Mental health conditions, limited to: mood disorders (including depression), schizophrenia spectrum disorders
  - Neurologic conditions that cause an inability to control respiratory secretions or communicate disease progression (e.g., Alzheimer-type dementia)
  - Obesity (body mass index above 30 kg/m^2)
  - Pregnancy or recent pregnancy (42 days post-partum/end of pregnancy)