trc pharmacist's letter ™ trc prescriber's letter ™ trc pharmacy technician's letter ™

March 2023 ~ Resource #390307

Outpatient COVID-19 Treatment Options

Use this algorithm to help identify the most appropriate outpatient COVID-19 treatment. To qualify, patients generally **MUST be ≥12 years old AND weigh ≥88 pounds (40 kg)**, but exceptions are noted below.[3,4-9]

Identify patients who qualify for outpatient COVID-19 treatment.

1. Has the patient been tested for COVID-19?
   - ☐ If YES, and test is positive, continue to the next question.
   - ☐ If no, encourage testing to ensure appropriate use of available treatment options. (Canadian product labeling requires positive result for outpatient COVID-19 treatments).[7,8]
2. Does the patient have **COVID-19 symptoms that started 7 days ago or less (note some products may only allow for use within 5 days of symptom onset)**?[3,4,7-9]
   - ☐ If YES, continue to the next question.
   - ☐ If no, the patient does not qualify for outpatient treatment of COVID-19.
3. Is the patient considered high risk of progression to severe disease, hospitalization, or death (e.g., immunocompromised, comorbidities [diabetes, heart disease, lung disease])? For conditions that may increase risk go to https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/underlyingconditions.html (US). In Canada, a scoring system to estimate hospitalization risk is available at http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID-treatment/ClinicalPracticeGuide_Therapeutics_MildModerateCOVID.pdf (Canada).
   - ☐ If YES, continue to the next section to determine the most appropriate treatment.
   - ☐ If no, the patient does not qualify for outpatient treatment of COVID-19.

Determine the most appropriate treatment (presented in order of preference per NIH guidelines) (In Canada, refer to your jurisdiction's guidelines for management of COVID-19.[10,11] British Columbia COVID Therapeutics Committee guidance is available at http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID-treatment/ClinicalPracticeGuide_Therapeutics_MildModerateCOVID.pdf). If one treatment is deemed inappropriate, continue down to the next treatment option.[1,2]

☐ ***Paxlovid*** **(nirmatrelvir co-packaged with ritonavir)**[3,7] **(authorized for ≥18 years old [Canada]**[7]**)**

1. Has the patient had COVID-19 **symptoms for 5 days or less**?
   - ☐ If YES, continue to the next question.
   - ☐ If no, the patient does not qualify for *Paxlovid*.

☐ ***Paxlovid*** **(nirmatrelvir co-packaged with ritonavir)**[3,7] **(authorized for ≥18 years old [Canada]**[7]**), continued**

2. Are the patient's concomitant medications safe to use with *Paxlovid*? **Screen for drug interactions.** *Paxlovid* is contraindicated with certain medications, examples include amiodarone, clopidogrel, lurasidone, phenytoin, simvastatin. Consider using the Liverpool COVID-19 Drug Interactions website: https://www.covid19-druginteractions.org/ or referring to *Paxlovid* authorization documents to screen for drug interactions.
   - ☐ If YES, continue to the next question.
   - ☐ If no, the patient does not qualify for *Paxlovid* unless contraindicated meds can be temporarily held (e.g., simvastatin). If contraindicated meds can be held, continue to the next question.
3. Is the patient's **liver function appropriate** for treatment with *Paxlovid* (i.e., normal liver function, Child Pugh Class A or B)?
   - ☐ If YES, continue to the next question.
   - ☐ If no, the patient does not qualify for *Paxlovid* (i.e., not recommended in Child Pugh Class C).[3,7]
4. Is the patient's **eGFR ≥30 mL/min/1.73m^2**?
   - ☐ If YES, the patient qualifies for *Paxlovid*, continue to the next question for dosing.
   - ☐ If no, the patient does not qualify for *Paxlovid* (i.e., not recommended if GFR <30 mL/min/1.73m^2).[3,7]
5. Is the patient's **eGFR ≥60 mL/min/1.73m^2**?
   - ☐ If YES, the recommended dose is nirmatrelvir 300 mg (two 150 mg tablets) and ritonavir 100 mg PO (taken together) every 12 hours for 5 days.
   - ☐ If no (i.e., eGFR is ≥30 and <60 mL/min/1.73m^2), the recommended dose is nirmatrelvir 150 mg (one tablet) and ritonavir 100 mg PO (taken together) every 12 hours for 5 days. If the **special dose pack for moderate kidney impairment** is not available, see dispensing instructions at https://www.fda.gov/media/155072/download (US) or https://recalls-rappels.canada.ca/en/alert-recall/paxlovid-nirmatrelvir-and-ritonavir-dosing-and-dispensing-renal-impairment-risk (Canada).

☐ ***Veklury*** **(remdesivir)**[8,9]

1. Has the patient had **symptoms for 7 days or less**?
   - ☐ If YES, continue to the next question.
   - ☐ If no, the patient does not qualify for remdesivir.
2. Can logistical issues be addressed to allow for administration of remdesivir? (Requires three consecutive days of infusions and administration in an area capable of monitoring for and treating possible hypersensitivity reactions.)
   - ☐ If YES, patients who weigh **≥40 kg (and, in Canada, are ≥12 years old)** qualify for remdesivir 200 mg IV on day one, followed by remdesivir 100 mg IV on days two and three. I**n the US only**, patients who are **≥28 days old and who weigh 3 kg to <40 kg** qualify for remdesivir 5 mg/kg IV on day one, followed by remdesivir 2.5 mg/kg/dose IV on days two and three.
   - ☐ If no, the patient does not qualify for remdesivir.

☐ ***Lagevrio*** **(molnupiravir)**[4] (US only [Note: **ONLY authorized for patients ≥18 years old**])

1. Are all other outpatient COVID-19 treatment options UNAVAILABLE or NOT appropriate?
   - ☐ If YES, continue to the next question.
   - ☐ If no, the patient does not qualify for molnupiravir.

- ☐ ***Lagevrio* (molnupiravir)**[4] (US only [Note: **ONLY authorized for patients ≥18 years old**]), continued
  2. Has the patient had **symptoms for 5 days or less**?
     - ☐ If YES, continue to the next question.
     - ☐ If no, the patient does not qualify for molnupiravir.
  3. Is the patient pregnant? (A pregnancy test is recommended if the patient has irregular menstrual cycles, is unsure of the first day of their last cycle, or is not using reliable contraception correctly.)
     - ☐ If NO, the patient qualifies for molnupiravir 800 mg (four 200 mg capsules) PO bid for 5 days.
     - ☐ If yes, the patient does not generally qualify for molnupiravir. Pregnant people may choose to try molnupiravir after a documented, informed discussion with the prescriber. (Note: there is a molnupiravir pregnancy surveillance program.)
  4. Is the patient breastfeeding?
     - ☐ If YES, the patient should avoid breastfeeding during molnupiravir therapy and for 4 days after the last dose. Continue to next question.
     - ☐ If no, continue to the next question.
  5. Is the patient of childbearing potential or sexually active with someone of childbearing potential?
     - ☐ If YES, counsel patients as appropriate:
       - ☐ **for female patients with child-bearing potential**: advise that reliable contraception is recommended during treatment and for **4 days** after the last dose of molnupiravir.
       - ☐ **for male patients with partner of child-bearing potential**: advise to use a reliable method of contraception during and for **3 months** after the last dose of molnupiravir.
- ☐ **COVID-19 specific "MAbs"** (CANADA only [**No** "MAbs" are currently authorized for COVID-19 TREATMENT in the US.])[6]
  1. Are all COVID-19 antivirals options unavailable or NOT appropriate?
     - ☐ If yes, contact your local health authority for guidance; current COVID-19 strains are highly resistant, and benefit may not outweigh risk. Also see our algorithm, "MAbs" for COVID-19: Patient Assessment.
     - ☐ If no, use appropriate antiviral.

Suggested resources to assess local COVID-19 treatment availability in the US

- ☐ Product availability can be found at https://covid-19-therapeutics-locator-dhhs.hub.arcgis.com/.
- ☐ Check with your local health department or local pharmacies.

US oral antiviral reimbursement information

- ☐ When submitting prescription claims, use Professional Service Code (440-E5) value of "PE" for patient education to account for the unique dispensing requirements associated with COVID-19 oral antivirals.[5]
- ☐ Follow pharmacy policy on the incentive value to submit for the "PE" professional service code.[5]
- ☐ National Community Pharmacy Association has guidance for dispensing and reimbursement at https://ncpa.org/sites/default/files/2022-01/COVID-19_antivirals_billing_for_NCPA_members.pdf.[5]

Abbreviations: bid = twice daily; eGFR = estimated glomerular filtration rate; IV = intravenously; "MAb" = monoclonal antibody; PO = orally.

Users of this resource are cautioned to use their own professional judgment and consult any other necessary or appropriate sources prior to making clinical judgments based on the content of this document. Our editors have researched the information with input from experts, government agencies, and national organizations. Information and internet links in this article were current as of the date of publication.

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