# Outpatient COVID-19 Treatment Algorithm

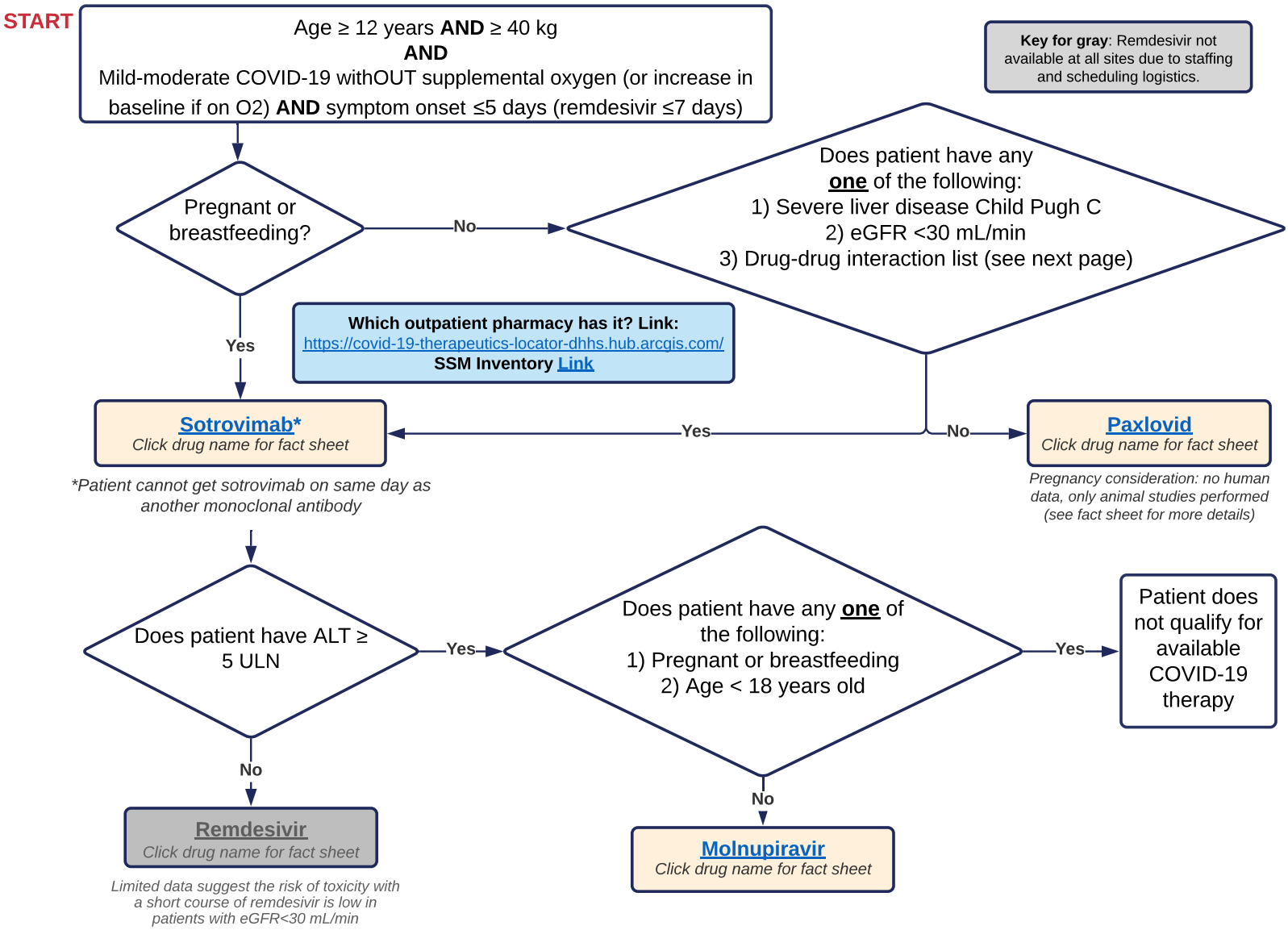
Scoring Tool Criteria and Points Subject to Change

**Patient Risk Scoring Tool**

**Due to supply shortage of COVID-19 therapeutic agents, patients with a risk score of ≥ 7 are prioritized. Factors included in the calculator are: age, diabetes, BMI (≥ 35), hypertension, pregnancy, vaccination (unvaccinated or partially vaccinated) status, and immunocompromised status (see page 2 for details).**

Agents listed on this algorithm have received Emergency Use Authorization (EUA) from the FDA and are to be used in the outpatient setting. Only remdesivir has received FDA approval for inpatient usage; outpatient administration is based on the PINETREE study and used off-label. Drug Fact Sheets are required to be given to patients.

| Rank | Agent | Timing of Administration from Symptom Onset | Efficacy<br>*Note: Studies were performed prior to omicron variant* |
|---|---|---|---|
| 1 | **Nirmatrelvir/ritonavir (Paxlovid)**<br>300mg/100mg BID PO x 5 days | ≤5 days | EPIC-HR study (n = 2,246): Paxlovid **reduced** risk of hospitalization or death by **89%** (within 3 days of symptom onset) and **88%** (within 5 days of symptom onset) vs. placebo.[1] |
| 2 | **Sotrovimab (Xevudy)**<br>500mg IV x 1 | ≤5 days | COMET-ICE study interim analysis: **relative risk reduction of 85%** in hospitalization or death vs. placebo.[2] |
| 3 | **Remdesivir (Veklury)**<br>200mg IV x 1, then 100mg daily on days 2 and 3 | ≤7 days | PINETREE study (n = 562): Three day outpatient remdesivir course had a **87% lower risk** of hospitalization or death than placebo.[3] |
| 4 | **Molnupiravir (Lagevrio)**<br>800mg PO BID x 5 days | ≤5 days | MOVe-OUT study (n = 1,433): Molnupiravir **~ 31% lower** rate of hospitalization or death through day 29 vs. placebo (hazard ratio, 0.69; 95% CI, 0.48 to 1.01).[4] |





**References**

1. https://www.pfizer.com/news/press-release/press-release-detail/pfizer-announces-additional-phase-23-study-results
2. Gupta A, Gonzalez-Rojas Y, Juarez E, et al. Early Treatment for Covid-19 with SARS-CoV-2 Neutralizing Antibody Sotrovimab.*N Engl J Med*. 2021;385(21):1941-1950. doi:10.1056/NEJMoa2107934
3. Gottlieb RL, Vaca CE, Paredes R, et al. Early Remdesivir to Prevent Progression to Severe Covid-19 in Outpatients [published online ahead of print, 2021 Dec 22].*N Engl J Med*. 2021;10.1056/NEJMoa2116846. doi:10.1056/NEJMoa2116846
4. Jayk Bernal A, Gomes da Silva MM, Musungaie DB, et al. Molnupiravir for Oral Treatment of Covid-19 in Nonhospitalized Patients [published online ahead of print, 2021 Dec 16].*N Engl J Med*. 2021;NEJMoa2116044. doi:10.1056/NEJMoa2116044.



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## Patient Risk Scoring Tool

A risk score of ≥ 7 is prioritized.

**Note: Scoring Tool Criteria and Points Subject to Change**

| Factor | Score |
|---|---|
| Age *(e.g. 50 years old = 5)* | 1 point for every 10 years |
| BMI ≥ 35 | 1 |
| Diabetes | 1 |
| Hypertension | 1 |
| Unvaccinated or partially vaccinated (not boosted) | 2 |
| Pregnancy | 4 |
| Immunocompromised status (see below for defintion) | 4 |

Immunocompromised (any of the following):
- Receiving active cancer treatment for tumors or cancers of the blood
- Received an organ transplant and are taking medicine to suppress the immune system
- Graft-versus-host-disease (GVHD)
- Received a stem cell transplant or Chimeric Antigen Receptor T-cell therapy (CAR-T) within the last 2 years or are taking medicine to suppress the immune system
- Moderate or severe primary immunodeficiency (such as DiGeorge syndrome, Wiskott-Aldrich syndrome, Immunodeficiency with increased immunoglobulin M, hyperimmunoglobulin E syndrome, Common Variable Immunodeficiency, functional disorders of polymorphonuclear neutrophils, nonfamilial hypogammaglobulinemia, hereditary hypogammaglobulinemia, severe combined immunodeficiency with retircular dysgenesis, etc.)
- Advanced or untreated HIV infection (CD4 count <200)
- Active treatment with high-dose corticosteroids (≥ prednisone 20 mg per day x 4 weeks) or other drugs that may suppress your immune response (B and T-cell depleting therapies, monoclonal antibodies therapy used in rheumatology and neurology, etc.)

## Paxlovid Drug-Drug Interactions

### Contraindications

1. Drugs **highly dependent on CYP3A for clearance** and for which elevated concentrations are associated with serious and/or life-threatening reactions. Examples include:

*Alfuzosin, pethidine, piroxicam, propoxyphene, ranolazine, amiodarone, dronedarone, flecainide, propafenone, quinidine, colchicine, lurasidone, pimozide, clozapine, dihydroergotamine, methylergonovine, lovastatin, simvastatin, sildenafil, triazolam, oral midazolam*

**OR**

2. Drugs that are **potent CYP3A inducers** (causes significantly reduced nirmatrelvir or ritonavir plasma concentrations; thus, may be associated with potential for loss of virologic response and possible resistance). **Note**: Paxlovid cannot be started immediately after discontinuation of any of the following medications due to the delayed offset of the recently discontinued CYP3A inducer:

*Apalutamide, carbamazepine, phenobarbital, phenytoin, rifampin, St. John's Wort*

### Use with Caution: Commonly Used Medications

- Ethinyl estradiol *(Consider non-hormonal contraception)*
- Rivaroxaban
- Warfarin

***Recommend holding these drugs for 5 days while on Paxlovid:***
- Cyclosporine
- Dasatinib
- Ibrutinib
- Nilotinib
- Sirolimus
- Tacrolimus
- Venetoclax

### For a Complete List of Potential Drug-Drug Interactions: EUA Table 1:

Link: Paxlovid EUA

Liverpool COVID-19 Drug Interaction Checker:
https://www.covid19-druginteractions.org/checker

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