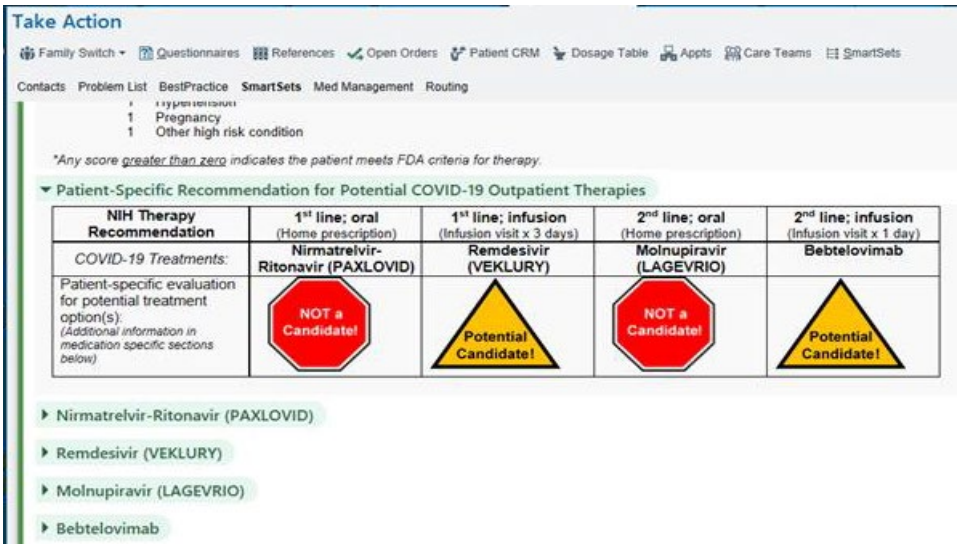
Outpatient COVID-19 Therapies Update (May 2022)

- With the predominance of the Omicron BA.2 variant in the area, many monoclonal antibodies previously used for COVID-19 are no longer effective or available
- There is now an adequate supply of new treatments available to order through the **Smartset: "*COVID-19 Outpatient Treatment Options with Guidance*" (Figure 1)**
    - Oral options: Must be started within **5 days** of symptom onset:
        - Nirmatrelvir-ritonavir (Paxlovid): 1st line
        - Molnupiravir
    - IV options: Must be started within **7 days** of symptom onset
        - Remdesivir
        - Bebtelovimab (monoclonal antibody)

Figure 1: Example of Smartset for Covid-19 Outpatient Treatment Options with Guidance



- Treatment of COVID infection should consider risk for severe illness with therapies and time from symptom onset
    - Any patients deemed at risk of severe illness by providers can now be treated
    - Risk factors in the EMR will be displayed in the SmartSet for discussion with the patient
- There are required questions built into the order to prompt and document that EUA-required medication evaluation and education has been completed. (Figure 2)
    - Electronically prescribe oral therapies to any Nebraska Medicine pharmacy location or send to an outside pharmacy, identified via the Therapeutic Locator
    - Patients should be instructed to pick up oral therapy prescriptions from the pharmacy the same day the prescription is written.
        - Curbside pick-up is preferred. Please include a note on the prescription if a courier is needed.
- Providers may request assistance with ordering therapies through the end of May by sending an email to the Pharmacy Outreach Team: pharmacyoutreachteam@nebraskamed.com or paging Antimicrobial Stewardship at (402) 888-0349

- Pharmacists in clinics or the Emergency Department will continue to assist with determining the best treatment options
- For instructions on entering a therapy plan, please refer to the COVID Therapy Outpatient Infusion Tip Sheet, and contact the Infusion Center Pharmacist (402)559-0900 for assistance if needed
- All these therapies for COVID-19, except remdesivir, are currently available via an FDA Emergency Use Authorization (EUA), therefore off-label prescribing is not allowed

Figure 2: Example of ordering nirmatrelvir-ritonavir with EUA-required questions

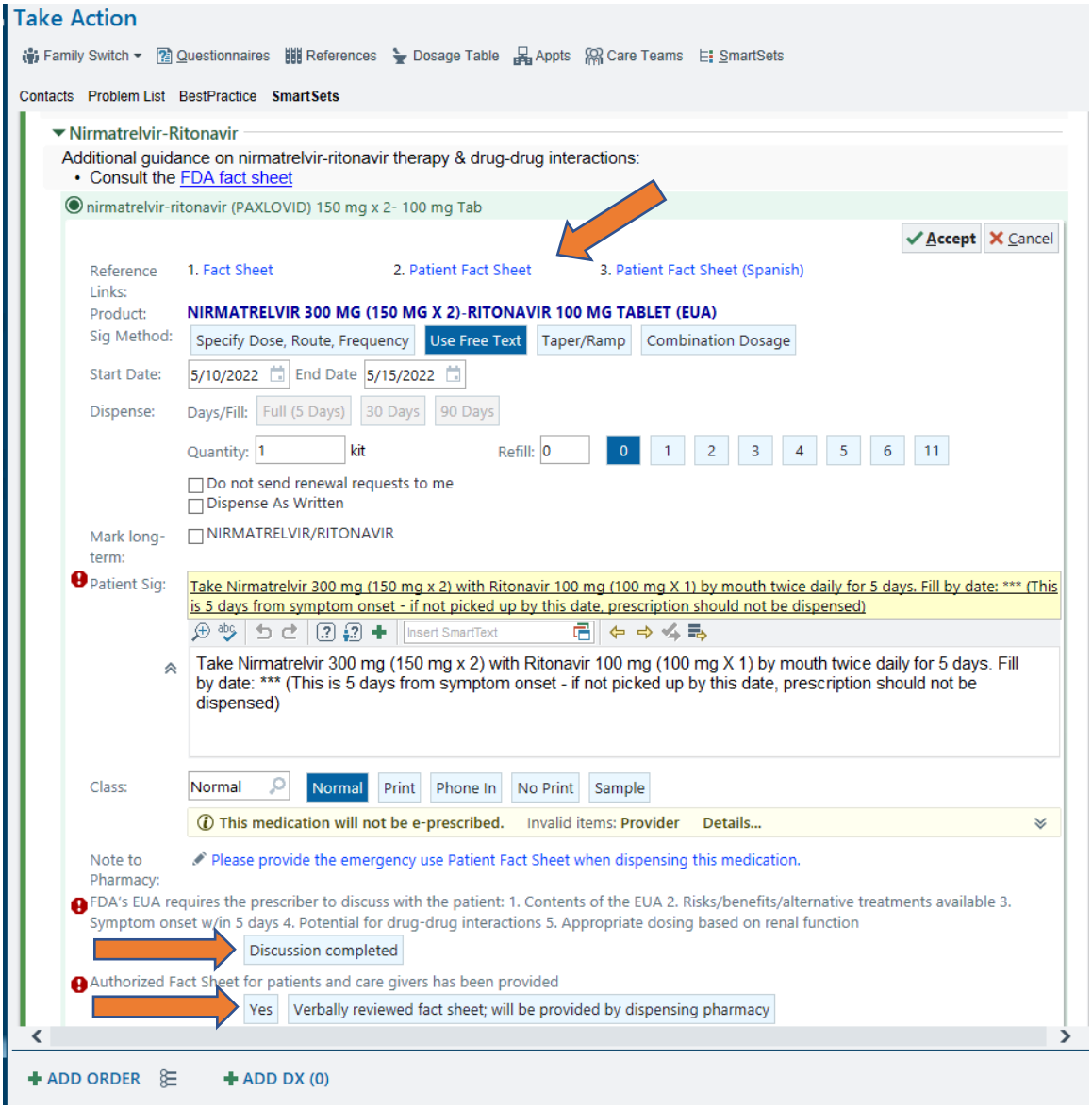


Table 1: Comparison of Outpatient COVID-19 Therapies

	Nirmatrevlir/ritonavir (Paxlovid) PO	Remdesivir IV	Molnupiravir PO	Bebtelovimab IV (monoclonal antibody)
Efficacy in *Unvaccinated* Populations	RRR: 88% Absolute risk: 6.3→0.8% NNT: 18	RRR: 88% Absolute risk: 6.3→0.8% NNT: 18	RRR: 30% Absolute risk: 9.7%→6.5% NNT: 31	RRR: Unknown, but expected to work similar to other mAbs (Absolute risk: 7%→1% NNT: 17)
Indications	Age ≥12 years and ≥40kg AND **within 5 days of symptom onset**	Age ≥28 days and ≥3.5kg AND **within 7 days of symptom onset**	Age ≥18 years AND **within 5 days of symptom onset**	Age ≥12 years and ≥40kg AND **within 7 days of symptom onset**
Dose	Nirmatrelvir 300 mg BID plus ritonavir 100 mg PO BID x 5 days	Ages ≥ 12 years: 200 mg on day 1, followed by 100 mg on D2 and D3	800 mg BID x 5 days	500 mg as a single IV infusion, over 30 min infusion and 1 hour post infusion observation
Available at UNMC	Yes, 7 days/week at NM DOC, LOC, BMC & University Health-Lincoln pharmacies	Yes, 7 days/week at NM Werner Cancer Hospital, and M-F at BMC by request	Yes, 7 days/week at NM DOC, LOC, BMC & University Health-Lincoln pharmacies	Yes, 7 days/week at NM Werner Cancer Hospital, and M-F at BMC by request
Common side effects	Dysgeusia, diarrhea	Mild: GI intolerance, LFTs abnormalities, infusion-related reactions	Diarrhea, Nausea, Anemia	Infusion-related reactions
Drug interactions	**YES**, ritonavir can increase or decrease levels of drugs metabolized by P450 CYP3A and impacts many drugs. Check drug to drug interactions.	No	No	No
Dose adjustment for Renal or Hepatic dysfunction	For GFR 30-60 mL/min, reduce dose to nirmatrelvir 150mg BID with Ritonavir 100mg BID Not recommended if GFR <30 mL/min or with severe hepatic impairment (Child-Pugh Class C)	Not recommended for patients with pre-existing liver disease (cirrhosis)	No dose adjustment required but not studied in CKD	No dose adjustment
Pregnancy Category	Not contraindicated	Not contraindicated	**Contraindicated**	Benefits may outweigh risks
Cost	Free to patient, small dispensing fee billed to insurance	Medication and infusion charge to insurance, and generally covered	Free to patient, small dispensing fee billed to insurance	Medication free to patient, charge for infusion billed to insurance