

ASHP BEST PRACTICES AWARD

Advancing Pharmacy Practice Through Treatment Selection: A Pharmacist-Driven COVID-19 Outpatient Treatment Referral Process

Julia Landis, PharmD, BCPS
Elizabeth Jacob, PharmD, BCPS
Ashton VanDyke, PharmD, MSHI, BCPS

Kettering Health
Kettering, Ohio



Back row: Ashton VanDyke, PharmD, MSHI, BCPS; Kevin Blackburn, RPh; Justin Boone, PharmD; Jim O'Donnell, MBA, RPh; Zac Keene, PharmD, BCACP
Front row: Elizabeth Jacob, PharmD, BCPS; Heather Glenn, PharmD; Rebecca Wysong, RN, MSN, CRNI; Linda McCall, MBA, RPh; Julia Landis, PharmD, BCPS; Jacinda Foley, RPh; Amy Whitehurst, RPh
Not pictured: Don Groff, MBA, RPh

Authors of this presentation disclose the following relationships with commercial interests related to the subject of this poster:

Authors have nothing to disclose.



Introduction

Health Facility

- Not-for-profit health system with 14 medical centers and 120+ outpatient facilities
- Serves greater Dayton, Ohio area and surrounding communities

Background

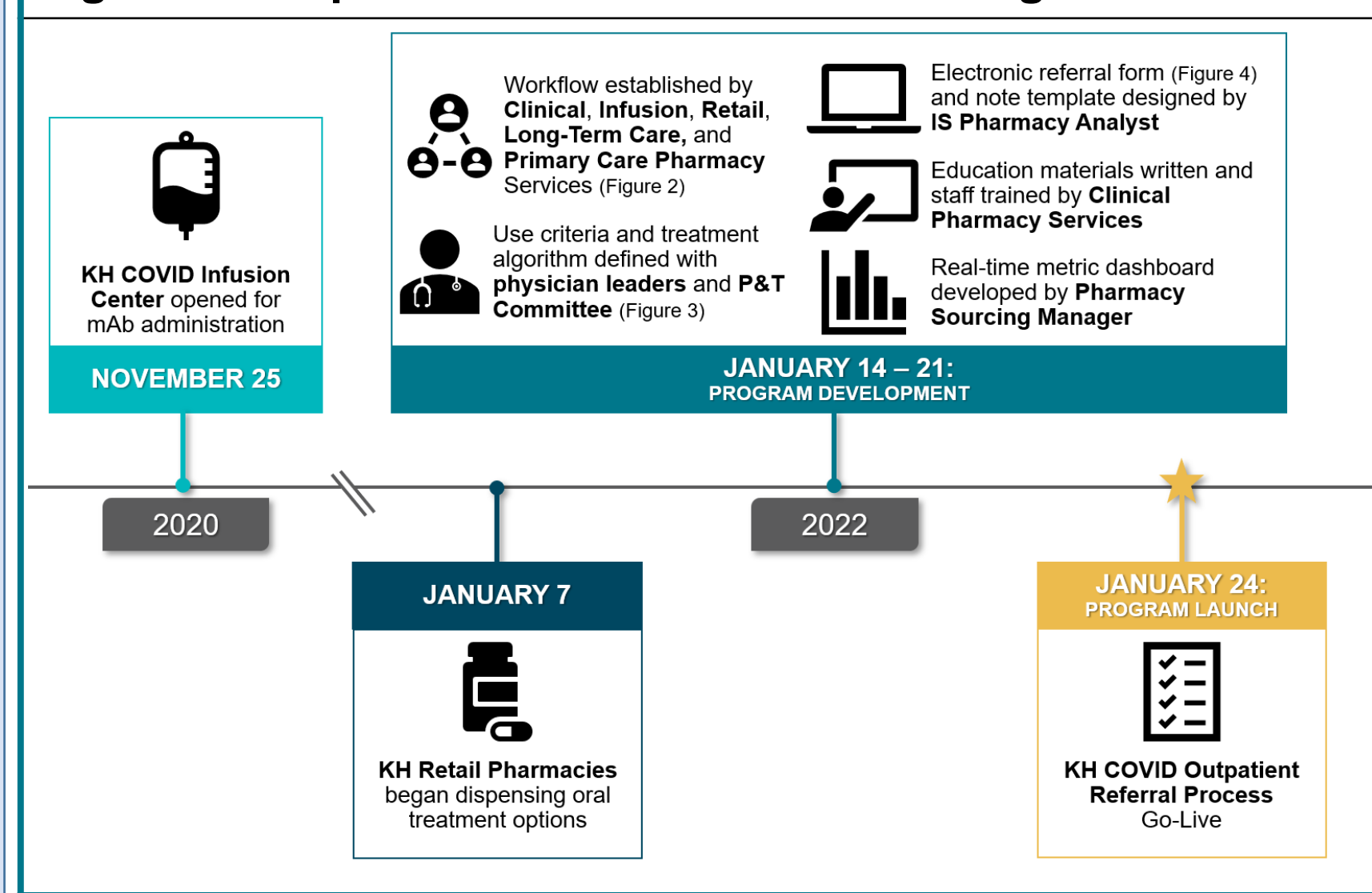
- Successful distribution of Coronavirus disease 2019 (COVID-19) outpatient treatments is key to improving patient outcomes and reducing strain on healthcare systems¹
- Kettering Health (KH) Pharmacy Services committed to distributing available treatments (Figure 1)
- Need to restructure treatment process was identified:
 - Use criteria was stricter for oral therapies than monoclonal antibodies (mAb) due to lower inventory
 - Providers unfamiliar with treatment differences
 - Pharmacy Service areas operated independently with no ambulatory clinical pharmacy services to coordinate treatment selection

Purpose

- Simplify ordering for providers and leverage pharmacist expertise to identify and procure the most safe and effective COVID treatment via a referral process

Description of the Program

Figure 1: Outpatient COVID Treatment Management



Description of the Program (continued)

Figure 2: Workflow of COVID Outpatient Referral Process

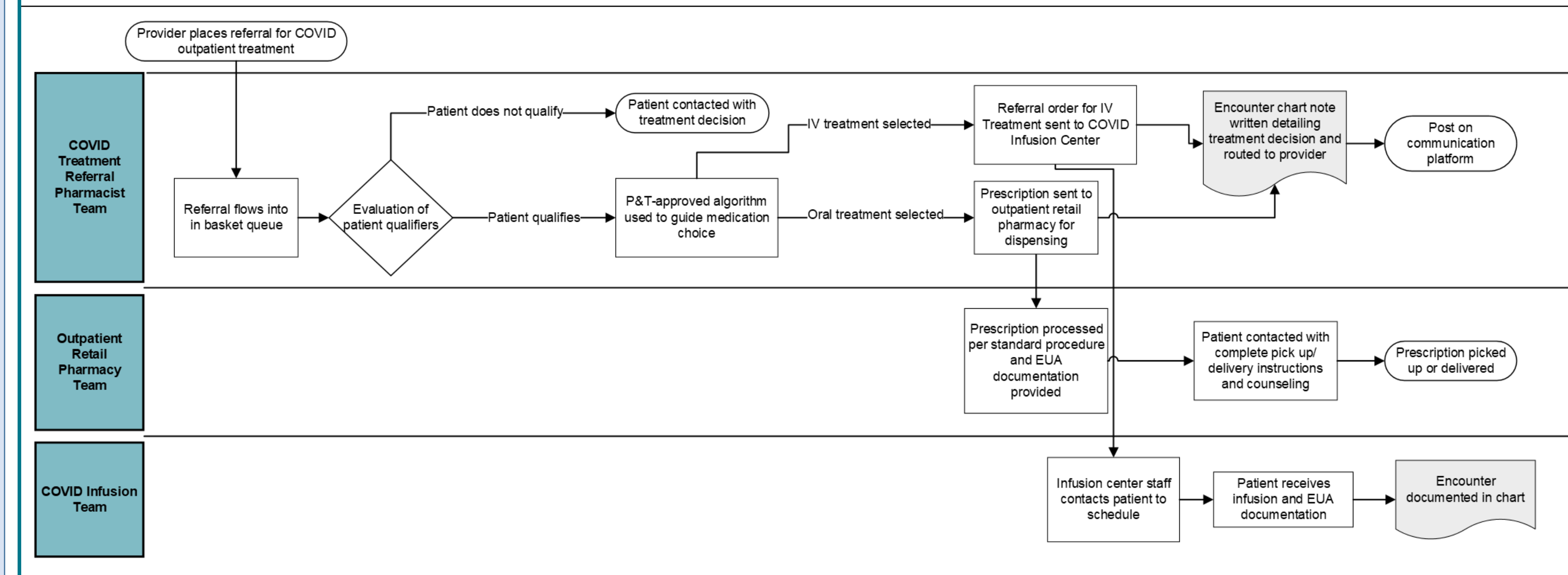
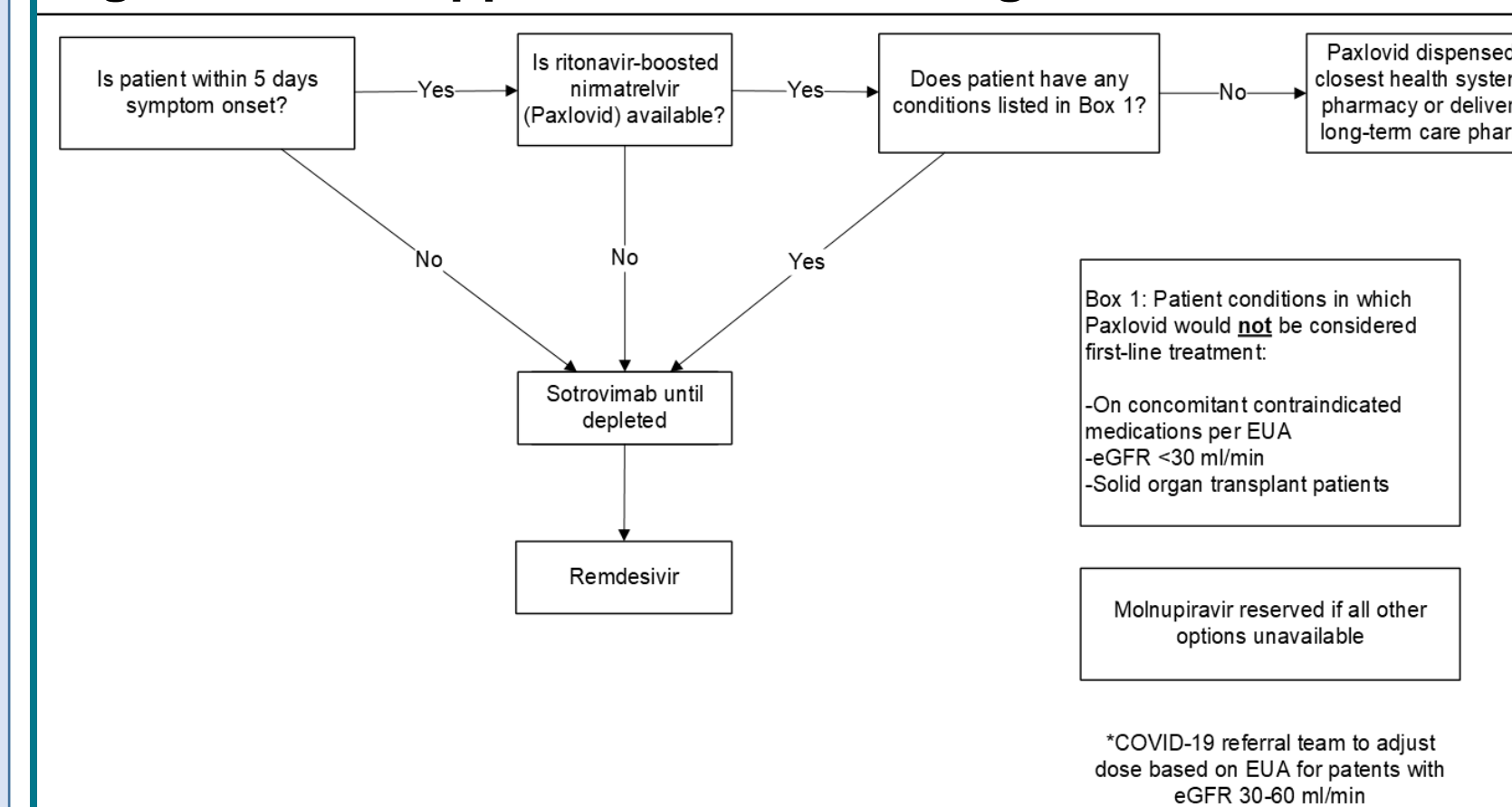


Figure 3: P&T Approved Treatment Algorithm



Algorithm ensured consistent patient review process and prioritized treatment based on National Institute of Health's (NIH) recommendations², available inventory, and Emergency Use Authorization criteria (EUA)¹

Experience with the Program

Quality Improvement

- Simplified ordering process by unifying use criteria
- Changes could be made and implemented rapidly as pandemic evolved (Table 1)
- Centralized inventory improved patient access and ensured judicious use of available supply (Figure 5)

Table 1: Updates Made to Treatment Algorithm

1/31/2022	Use criteria expanded due to improved inventory
2/8/2022	Use criteria expanded due to improved inventory
4/1/2022	Sotrovimab removed ⁺ , bebtelovimab added
6/30/2022	Molnupiravir added ⁺⁺

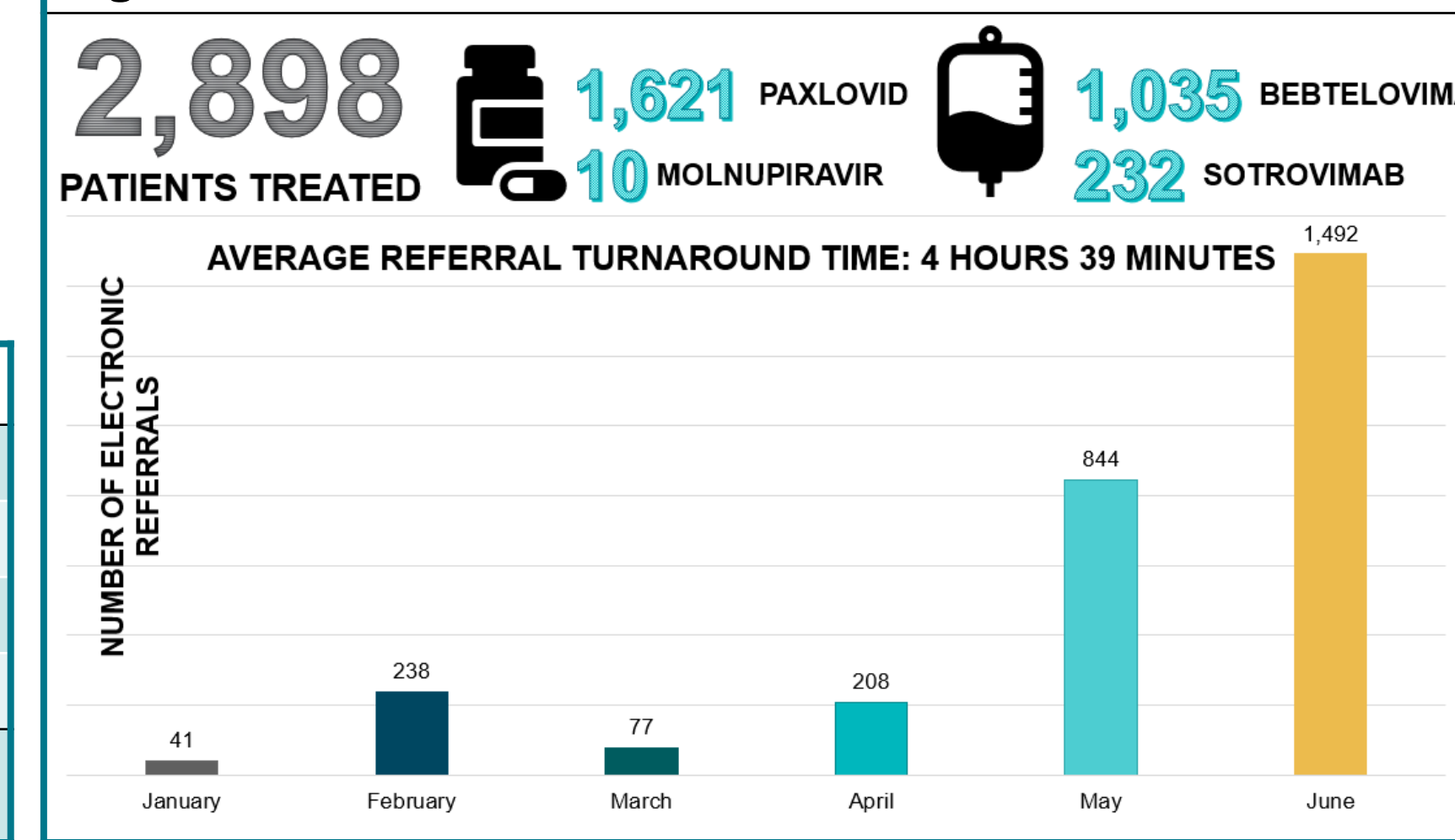
⁺ Sotrovimab EUA rescinded for KH's region due to variant resistance¹
⁺⁺ Per updated NIH guidelines²

Figure 4: Excerpt of Custom Electronic Referral Form

The form includes fields for 'Date of symptom onset' and checkboxes for various treatments: nirmatrelvir-ritonavir (PAXLOVID) 150-100 mg dose pack, Molnupiravir 200 mg capsules, Sotrovimab 500 mg infusion - Once, and IV Remdesivir 200 mg infusion Day 1; 100 mg infusion Day 2 and 3. It also includes a section for 'Symptom onset > 7 days' and a note: 'Medication cannot be ordered. Patient past eligibility date.'

Referral form filtered treatments per symptom onset date (≤5, 6-7, and ≥ 7 days). Providers then selected all options they wanted considered for their patients during pharmacist review. The form also required use criteria selection.

Figure 5: Referral Statistics



Experience with the Program

Safe Treatment Selection

- More than one treatment option selected for consideration in 80.3% (2,328) of all referrals (n=2,900)
 - All four selected in 52.7% (1,528) of referrals
- First-line treatment, Paxlovid², was selected for consideration in 89.9% (2,606) of all referrals
 - After pharmacist review, 37.8% (985 of 2,606) of these patients received an alternative (Table 2)

Table 2: Reasons Paxlovid Alternative Chosen (n = 985)

Drug-Drug Interaction	669 (67.9%)
Patient Preference	64 (6.5%)
Renal Impairment	45 (4.6%)
Other (Criteria not met, patient declined/preference, organ transplant)	207 (21%)

Pharmacists reconciled medication histories via patient telephone encounters when Paxlovid was selected due to extensive drug-drug interaction list. Patient labs were also reviewed for renal and hepatic function.

Pharmacy Practice

- Expanded pharmacists' role in new care settings
- Three full-time equivalent pharmacist positions justified

Discussion / Conclusion

- This is a highly successful and pharmacist-centric program that is fully incorporated into our health system's outpatient COVID-19 care
- In most cases, pharmacists were responsible for the final treatment decision, reflecting the reliability of the program and pharmacist integration into patient care decisions
- The maintenance of the program through frequent changes speaks to its sustainability and its value was recognized by health system administration and interdisciplinary colleagues

Acknowledgements

- KH Infusion Pharmacy Staff; KH Retail Pharmacy Staff; KH Collaborative Pharmacy Staff; KH COVID Referral Pharmacists
- Ashlee Ames, MD, FAAP, FACP, FHM; Ward Blair, MD; Nancy Pook, MD, FACEP; Jeffrey Weinstein, MD, FIDSA, CPE

References

- Food and drug administration. Emergency Use Authorization; 2022. Accessed July 23, 2022. <https://www.fda.gov/emergency-preparedness-and-response/mcm-legal-regulatory-and-policy-framework/emergency-use-authorization>
- COVID-19 Treatment Guidelines Panel. Coronavirus Disease 2019 (COVID-19) Treatment Guidelines. National Institutes of Health. Available at <https://www.covid19treatmentguidelines.nih.gov/>. Accessed January 17, 2022.