

Background

- Highly effective vaccines have reduced mortality related to SARS-CoV-2, however treatment remains important for high-risk populations.
- The Federal Drug Administration (FDA) approved remdesivir for treatment of COVID-19 in adult and pediatric patients who require hospitalization or non-hospitalized patients with mild to moderate COVID-19 at high risk for progression to severe COVID-19, including hospitalization or death.
- Shortages of hospital resources due to repeated surges of COVID-19 cases led Kaiser Permanente Southern California (KPSC) to implement outpatient “pop-up” tents and home infusion of remdesivir via the traditional home health model or advanced medical care at home (AMCAH) model.
- Limited research has been conducted on facilitators and barriers to rapid initiatives for delivery of outpatient care.

Purpose

Describe the program structure of outpatient care of SARS-CoV-2 including integration of remdesivir treatment and learnings for future allocation of resources for public health emergencies.

Methods

- Retrospective analysis uses electronic medical records and prescription dispensing database of patients enrolled in the COVID-19 pandemic remote patient monitoring (RPM) at a multi-center integrated healthcare system.
- Patients were eligible for the RPM program based on a validated COVID-19 risk score assessing comorbidities, obesity, BMI >40, vital signs, age, and sex.
- Triage screening for remdesivir treatment was stratified by pulse oximetry oxygen saturation (SpO2 ≥ 94% on room air, <94% on room air and/or requiring low-flow supplemental oxygen ≤ 6 L/minute).
- Inclusion criteria: 18-75 years of age with confirmed SARS-CoV-2 infection ≤ 10 days who received outpatient remdesivir (proximate to hospitals or via home infusion) administration between December 1, 2020- August 31, 2022.

Results

Figure 1. Implementation Timeline



Figure 2. Remdesivir Transition of Care to Home

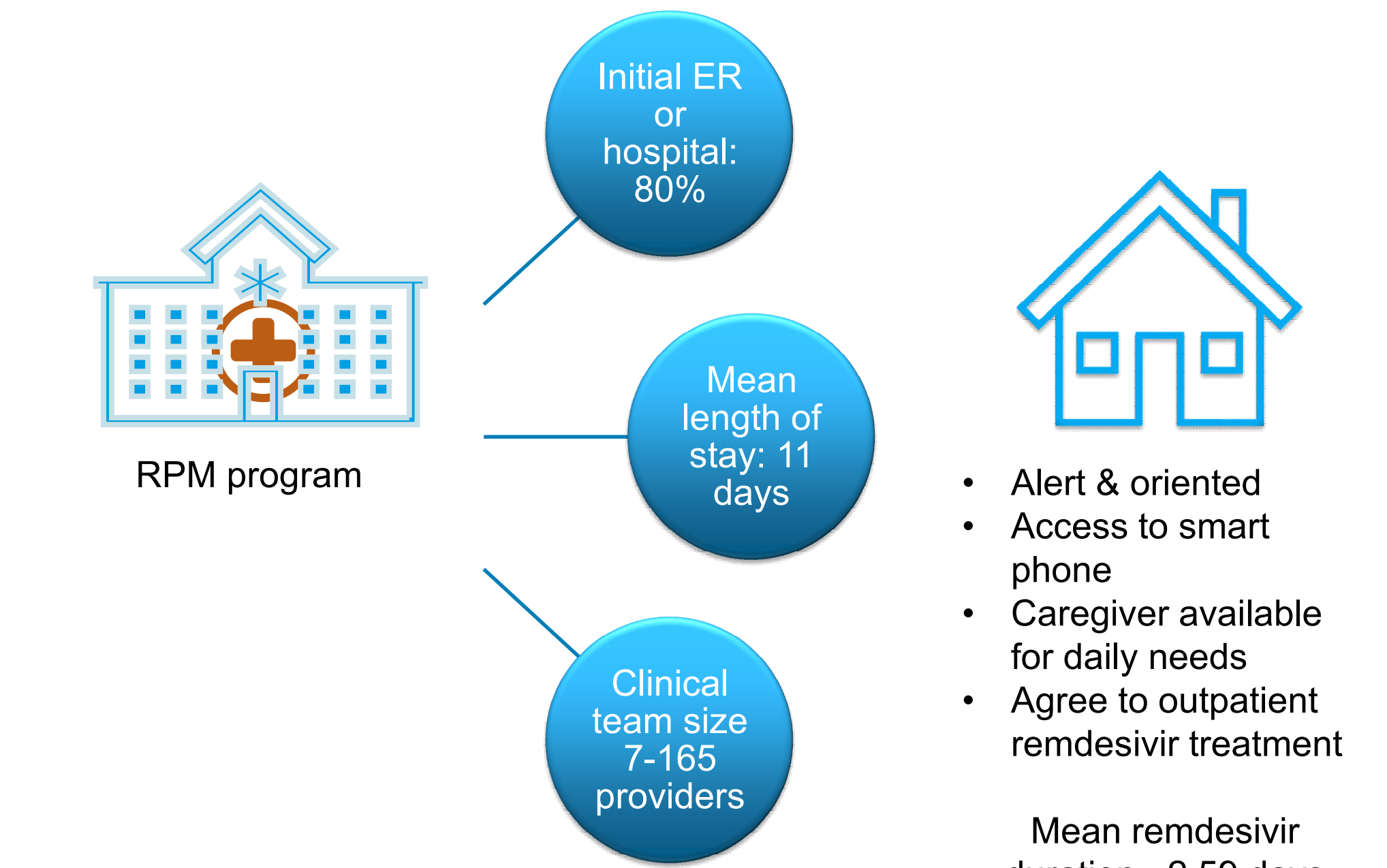


Figure 3. Patient Disposition

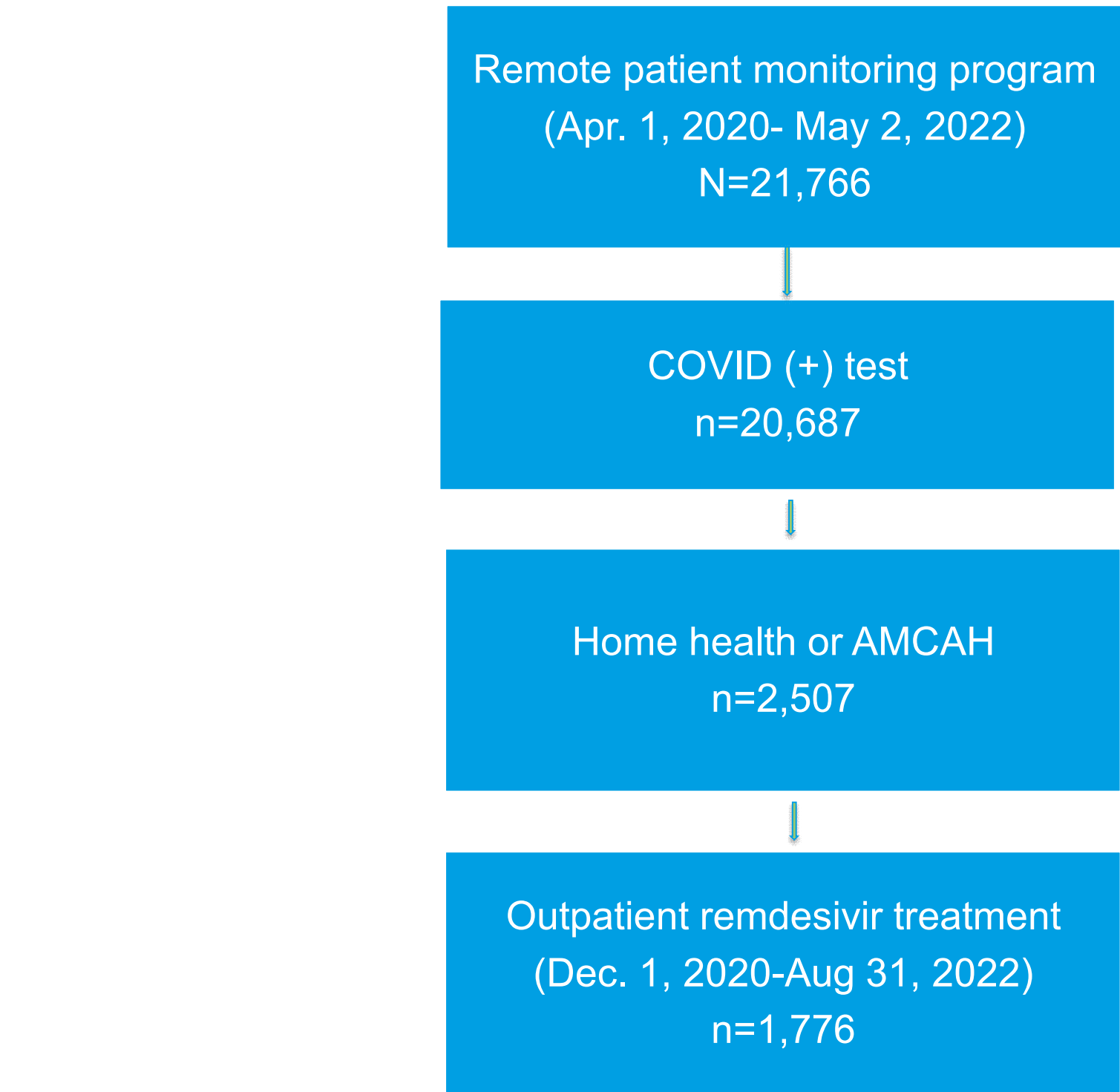
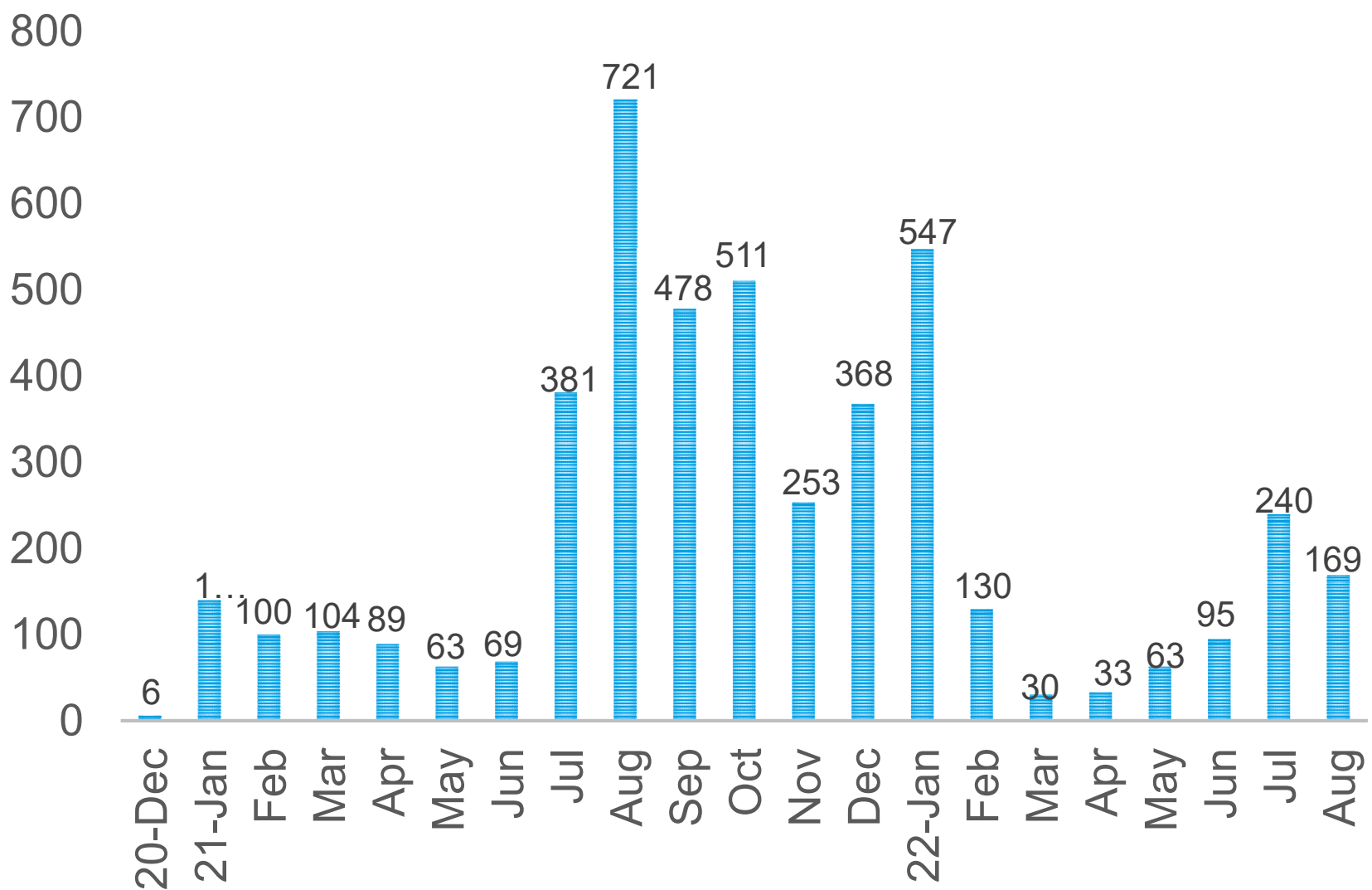


Figure 4. Monthly Outpatient Remdesivir Quantity Dispensed December 2020-August 2022



Discussion

- Adoption of an RPM program facilitated early detection of deterioration and expedient delivery of remdesivir in the outpatient setting.
- Various providers were re-deployed to support RPM including physical, respiratory therapists, and pharmacists.
- Next day virtual video follow-up with physician coordinated with remdesivir administration by home health
- Two factors were linked to successful implementation:
 - 1) Linkage with a medical center allowing home infusion pharmacy to procure medications indicated for acute use
 - 2) Provider support of AMCAH to supplement traditional home health.

Conclusions

Outpatient remdesivir administration at KPSC as part of the expanded comprehensive outpatient care of SARS-CoV-2 helped to relieve strained hospital resources. Surveys are planned among providers and patients who participated in this program to assess satisfaction and evaluate clinical outcomes.

Author Disclosure: This research was supported by an investigator initiated collaborative research grant from Gilead Sciences. Investigators retained full independence in the conduct of this research.