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 ≤ to 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

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 care and pharmacy to procure medications indicated for acute use 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.

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.

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