

Outbreak and Management of COVID-19 and Infection Prevention Control Practices at a Community Living Center in Veterans Administration Hospital, North Texas



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Background

- The increase in SARS-CoV-2 cases due to the omicron wave led to significant utilization of healthcare resources and reduced acute care hospital beds at the Veterans Administration Hospital, North Texas Health Care System (VANTHCS).
- As a result, veterans with non-severe disease were managed at a VANTHCS community living center (CLC), a VA nursing home for variable length of stay, during a COVID-19 outbreak.

Methods

- Veterans residing at the CLC with laboratory-confirmed cases of SARS-CoV-2 (the virus that causes COVID-19) by polymerase chain reaction diagnosed from January 1 to February 15, 2022, were included in the descriptive analysis.
- We describe resident characteristics and outcomes, and infection control practices (IPC) implemented to control the outbreak.
- Resident data was ascertained from the COVID-19 facility dashboard and medical record system.

Results

- From January 1–February 15, 2022, 33 adults residing at the CLC were diagnosed COVID-19.
- Most infections (93.9%) occurred between January 12–24 (figure 1).

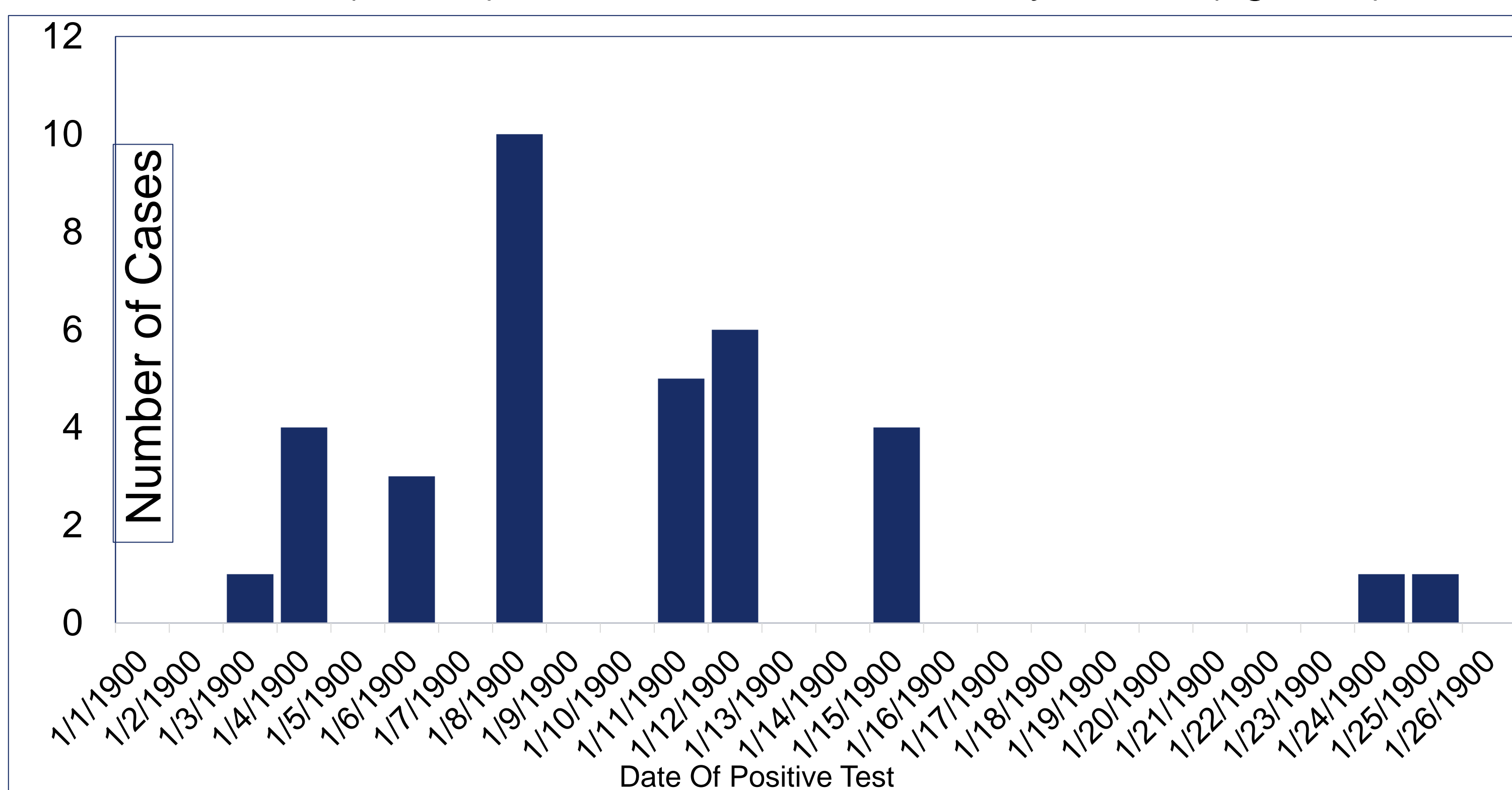


Figure 1: Epidemic curve of laboratory-confirmed coronavirus disease 2019 (COVID-19) disease at a Community Living Center, Veterans Administration Hospital, North Texas Health Care System, January–February 2022

Results

- Residents were cohorted based on COVID-19 results.
- A multidisciplinary team was convened, and staff were fit tested for appropriate personal protective equipment (PPE) and received refresher training on hand hygiene, donning and doffing of PPE.
- Medical providers worked with Infectious disease service and pharmacy to identify eligible patients for COVID-19 therapies.
- The median age was 76 years [IQR 71–80 years], 30 (90.9%) men, 25 (75.8%) white, and 5 (15.2%) African American (table 1).
- 19/33 (57.6%) symptomatic.
- Overall, 28 (84.8%) were documented to be fully vaccinated against SARS-CoV-2 and 24 (72.7%) boosted.
- Obesity, ischemic heart disease, chronic obstructive pulmonary disease, and stroke were the most common comorbidities.

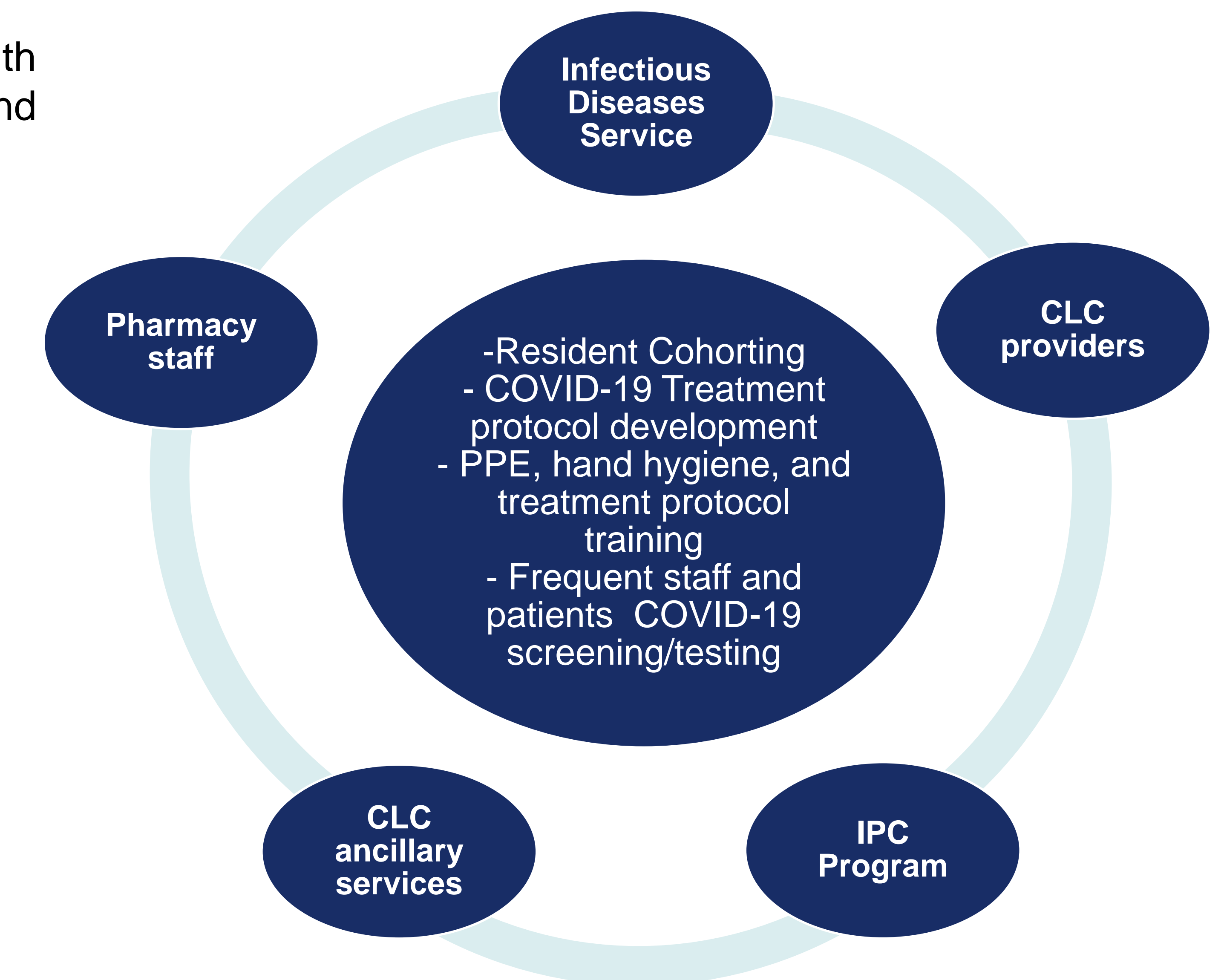


Figure 2: Multidisciplinary collaboration and outbreak interventions

- Most residents were determined to have mild or moderate COVID-19 and managed at the CLC while 7 (21.2%) were hospitalized in the acute care hospital.
- For management of COVID-19, 11 (33.3%) received dexamethasone and 25 (75.8%) received remdesivir.
- Overall, 32 (97%) residents survived while one hospice resident was transferred to acute care and died; only 1 resident required ICU admission.

Conclusions

It is feasible to administer COVID-19 therapies to high-risk residents with mild-moderate disease in a CLC with a multidisciplinary team and IPC strategies.



Table 1: Epidemiological Characteristics, and Outcomes of Laboratory-confirmed COVID-19 cases (N=33)

Characteristics	n (%)
Location	
Unit A	19 (57.6%)
Unit B	5 (15.2%)
Dementia unit	9 (27.3%)
Age in years, median [IQR]	76 [71-80]
Male Sex	30 (90.9%)
Race	
White	25 (75.8%)
Black or African American	5 (15.2%)
Unknown	2 (6.1%)
Asian	1 (3.0%)
BMI (kg/m²)	
18.5–24.9 (Healthy weight)	7 (21.2%)
25–29.9 (overweight)	15 (45.5%)
≥30 (obesity)	11 (33.3%)
Symptomatic status	19 (57.6%)
Comorbidity	
Ischemic heart disease	8 (24.2%)
COPD	6 (18.2%)
Stroke	6 (18.2%)
ESRD	2 (6.1%)
Peripheral vascular disease	2 (6.1%)
Other ¹	2(6.1%)
Number of Comorbidities	
0	17 (51.5%)
1	9 (27.3%)
2	5 (15.2%)
3+	2 (6.1%)
COVID-19 vaccination status	
Fully vaccinated (primary series)	28 (84.8%)
Vaccinated and boosted	24 (72.7%)
Treatment	
Remdesivir	25 (75.8%)
Dexamethasone	11 (33.3%)
Outcomes	
Hospitalized outside CLC	7 (21.2%)
ICU	1 (3.0%)
Death	1 (3.0%)

Abbreviation: BMI, body mass index; COPD, Chronic Obstructive Pulmonary Disease; ESRD, end stage renal disease. Other comorbidity (asthma n=1 and chronic liver disease n=2)