COVID-19 and the administration of bamlanivimab; a cooperative effort between a community cancer center and an urgent care facility

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Background

The SARS-CoV-2 outbreak which the world has been dealing with over the past year has rattled economies, tested governments and caused over 500,000 deaths in the USA alone. A focused national plan to combat COVID-19 and the pandemic must be multifaceted and have different medical approaches to combat with a strong public health component. For reasons that are still unknown, up to 10% of asymptomatic and mild infections lead to more severe outcomes, including respiratory distress requiring hospitalization. On November 9, 2020, the U.S. Food and Drug Administration issued an emergency use authorization (EUA) for the investigational monoclonal antibody, bamlanivimab, for the treatment of mild-to-moderate COVID-19 in adult and pediatric patients. Shortly after this emergency use authorization, MA DPH reached out to Southcoast Health to provide these infusion services to COVID-19 positive patients that are age ≥ 65, those age ≥ 18 with BMI ≥ 35, and/or meet EUA criteria tier 2. Patients with comorbidities (high risk) tend to do poorer when infected with SARS-CoV-2. The goal of Massachusetts DPH is to ensure equitable distribution to the most vulnerable population at risk of poor outcomes from COVID-19 and communities with the highest incidence of COVID-19. A lottery system was used to determine those able to receive infusion.

Southcoast administation collaborated with Urgent Care and Cancer Center leadership to quickly bring these services to our region. The decision was made to begin the clinic in Fairhaven, MA because it is inhabited by an urgent care and cancer center in the same building. It was also advantageous to be able to incorporate pharmacy services at the cancer center, along with infusion expertise, in an urgent care setting where reactions could be managed appropriately.

RN staff from emergency rooms, intensive care, and out-patient infusion areas were asked to staff the clinic in addition to their primary roles. Urgent Care paramedic staff and medical assistants were enlisted to support the nurses in this environment. A comprehensive team of oncology pharmacists, pulmonologists, infectious disease experts, COVID screening nurses, ER nurses, and clinical/non-clinical leadership were part of a work group that set guidelines to establish, streamline, and troubleshoot the process. Training of staff included an all-inclusive overview of monoclonal antibody use, administration, and emergency responses. The clinic was functional within 2 weeks of initial planning.

Characteristics of the Patients at Baseline

<table>
<thead>
<tr>
<th>Total Patients</th>
<th>Male</th>
<th>Female</th>
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<tr>
<td>152</td>
<td>86</td>
<td>66</td>
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- **Age**
  - Average: 68.8 years
  - Range: 20-93

- **BMI greater than 35**
  - 17%

- **Risk Factors**
  - Age greater than 64
  - 56%
  - BMI greater than 35
  - 17%

Results

- Summary of first 152 cases treated from December 15, 2020 thru January 28, 2021
  - Percent of patients who were seen in ED in 14 days, 13.8%
  - Percent of patients who were admitted in 14 days, 7.2%
  - Percent of patients who were seen in ED in 28 days, 5.9%
  - Percent of patients who were admitted in 28 days, 2%
  - Two deaths reported in our ICU of 152 patients
  - Two deaths reported post treatment

Conclusions

The cooperative effort between the Cancer Center and Urgent Care led to positive outcomes for local COVID-19 patients. Southcoast had a 26% admission rate overall for COVID-19 patients vs. 6% in the Med program

Southcoast Health

Southcoast Health is a not-for-profit, community-based health system with multiple access points, offering an integrated continuum of health services throughout southeastern Massachusetts and Rhode Island.

At the Southcoast Cancer Center, our team of experienced healthcare professionals bring a higher level of technology, treatment and expertise to the South Coast region. The Cancer Program at Southcoast Health continues in its mission to meet the growing need for comprehensive cancer services.

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References


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