

COVID Care Clinic: A Unique Way for Family Medicine to Care for the Community During the SARS-CoV-2 (COVID-19) Pandemic

Journal of Primary Care & Community Health
Volume 11: 1–4
© The Author(s) 2020
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/2150132720957442
journals.sagepub.com/home/jpc



Nathan A. Jacobson¹ , Darshan Nagaraju¹, Jennifer M. Miller¹, and Matthew E. Bernard¹

Abstract

The COVID-19 pandemic has presented new challenges in how Primary Care clinicians care for community patients. Our organization quickly allocated 1 of our community clinic sites into a dedicated COVID Clinic caring for the COVID positive or any patient with COVID like symptoms to minimize contact with the well patients. A prerequisite for all patients to be seen in the COVID Care Clinic was a virtual visit staffed with Advanced Practice Providers that would further determine if the patient needed to seek emergency medical care or be seen in the COVID Clinic. From March 23, 2020 through May 15, 2020, 852 patients with COVID symptoms were seen in this clinic rather than the emergency department. This article describes a collaborative effort to care for a community during the COVID-19 pandemic. This unique setting allowed us to focus an appropriate level of care to a high risk population in a safe and effective manner in the ongoing effort to flatten the epidemiological curve.

Keywords

COVID Clinic, primary care, pandemic, community health, access to care, disease management

Dates received: 23 July 2020; revised: 11 August 2020; accepted: 12 August 2020

Background

When the World Health Organization (WHO) declared a global pandemic in March 2020¹ with SARS-CoV-2 (COVID-19), primary care had to develop innovative ways to care for our patients with COVID concerns and respiratory illness. Here we describe the development of such a clinic in an effort to contain the illness, prevent spread in the community, and provide needed care for this patient population.

The first case of COVID-19 infection was diagnosed in Minnesota on March 3, 2020.² Epidemiologists have long promoted containment as a strategy to prevent community transmission.³ Through a multidisciplinary effort, Family Medicine rapidly converted 1 of our community clinics into a “COVID Care Clinic.” This clinic was reserved for patients who were known COVID positive, had COVID test results pending, had symptoms of potential COVID, or known COVID negative with COVID symptoms still present 48 h post testing. In addition, this local clinic also had a large scale drive-through testing specimen collecting site which collected a total of 9160 nasopharyngeal swabs for

the Southeast Minnesota region.⁴ These SARS-CoV-2 PCR test results were processed within 24 to 48 h.

Implementation

At the Mayo Clinic in Rochester, MN, there are 5 Family Medicine Community Clinics. The Northwest Family Medicine Clinic was closed for routine patients and converted into an exclusive COVID Care Clinic for the region. One third of the providers that practiced at that site stayed on as volunteers. The rest were reassigned to other local primary care clinics. Patients were also temporarily reassigned to the other primary care clinics during this time. This collaborative effort included staff volunteers from family medicine, pediatrics, and internal medicine to work at the COVID care clinic.

¹Mayo Clinic, Rochester, MN, USA

Corresponding Author:

Nathan A. Jacobson, Department of Family Medicine, Mayo Clinic, 4111 W Frontage Road Hwy 52 NW, Rochester, MN 55901, USA.
Email: Jacobson.nathan@mayo.edu



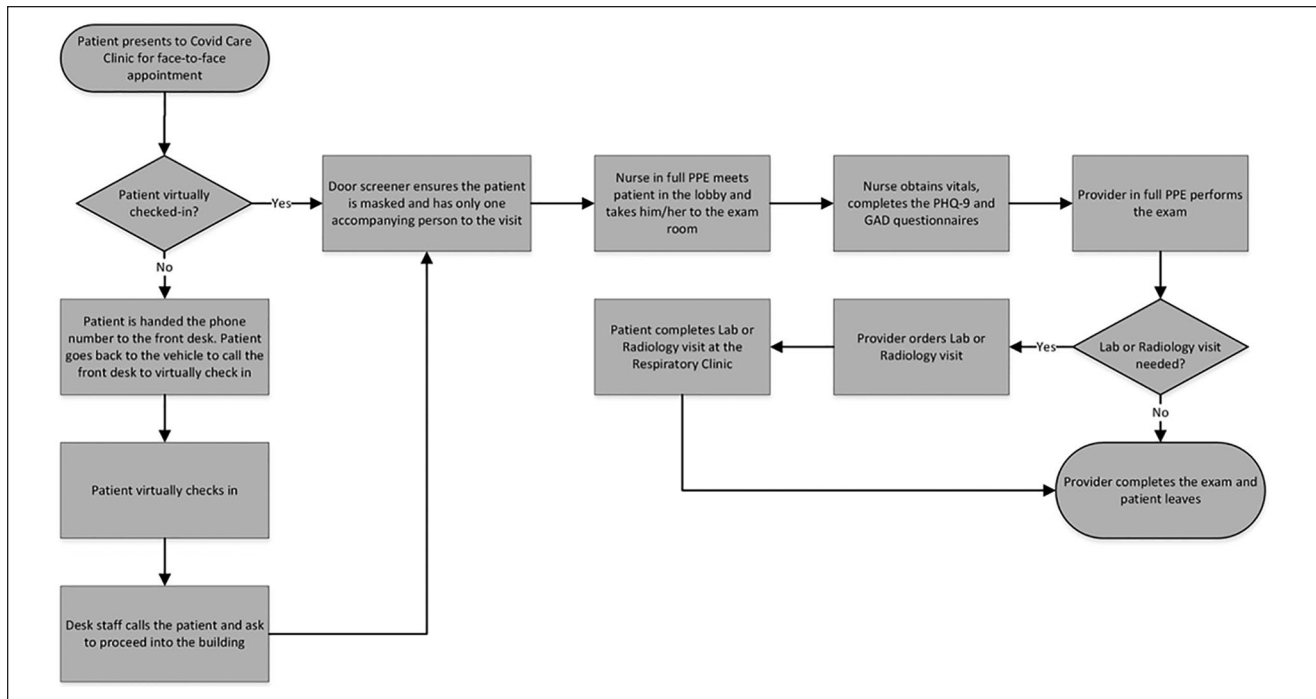


Figure 1. COVID Care Clinic patient process flow.

Table 1. List of COVID Symptoms.

• Fever	• Cough
• Shortness of breath or difficulty breathing	• Chills
• Repeated shaking with chills	• Muscle pain
• Headache	• Sore throat
• New loss of taste or smell	• Gastrointestinal upset and diarrhea
• Skin changes or rash	• Inflammation of testis

Our goal was to develop a dedicated clinic for these sick patients to minimize the contact of COVID positive or person under investigation (PUI) with our healthy patients that were being evaluated at the other clinic sites. This required staffing with appropriate care team members to ensure a high standard of care and appropriate access for triage, face to face visits, and virtual care. This model helped to decompress the overloaded Emergency Department and keep sick patients out of our well clinics. At the onset of the pandemic, our Acute Care Clinics or Same Day Clinics housed within retail stores were closed to minimize transmission for this subset of patients.

Pre-COVID, virtual visits at Mayo Clinic were only done by specialists. Primary care had not transitioned to a virtual platform although the need had been identified but was still years away. Within a few weeks, we had made the leap into virtual visits within primary care. Zoom was chosen as the preferred platform for virtual visits over the use of phone visits to more accurately assess the patients.

The process (Figure 1) started with the patient calling into our patient appointment services specialist team looking to be seen for acute COVID symptoms (Table 1). Prior to being seen in the COVID Care Clinic, all patients were required to have a virtual visit. Family Medicine Advanced Practice Providers (APP's) were quickly trained to do virtual visits and deployed to triage these respiratory patients. This allowed us to develop local expertise in COVID screening and management to ensure a more standardized practice and minimize exposure in the non-respiratory clinics. During the Respiratory virtual visit, it was determined if the patient needed to seek emergency medical care, be seen in the COVID Care Clinic, and if COVID testing was appropriate if not already triaged.

Once the virtual visit was done and the provider determined that a face to face visit was necessary, the patient appointment services specialist team supporting the virtual providers were asked to schedule a face-to-face visit in the COVID Care Clinic for further evaluation as soon as

possible. This appointment was typically scheduled within hours of the virtual visit. Patients were instructed to call the clinic front desk before entering the building for the appointment, to wear a mask, and that only 1 individual could accompany the patient to the appointment to minimize exposure.

In addition, the physical space and movement of patients through this clinic was redesigned to maximize the social distancing of the patients with each other and staff as they moved through the clinic. There was no waiting room or lobby and patients were instructed to stay in their car in the parking lot upon arrival and call our desk staff to check-in over the phone. When the nursing staff was ready, the front desk staff instructed the patient to proceed to the building. A front door screener confirmed that the patient had an appointment in the COVID Care Clinic and provided the patient with a face mask, if the patient was not already wearing a mask. A nurse wearing full PPE met the masked patient in the lobby and escorted directly to the exam room. After the exam was finished the patient was escorted to the front lobby and exited the building directly.

Necessary on-site ancillary services (radiology, EKG, lab, pharmacy) were incorporated into the clinic and again strictly dedicated to COVID positive/potential patients. If an x-ray was necessary, an order was placed and the technician came to the exam room to escort the patient to and from the radiology suite and back to the exam room to minimize any contact. The pharmacy implemented curbside pickup of prescriptions, whereby the patient was able to exit the clinic after the exam and the pharmacist or pharmacy tech would deliver the prescription to the individual who was waiting in his/her vehicle. Given the stringent requirements for room closures post procedure, aerosol-generating procedures, including nebulizers, were discontinued in the Family Medicine Clinics, including the COVID Care Clinic.

All care team members with direct patient-facing contact, including providers, nurses, lab and radiology technicians, donned full PPE prior to the patient interaction. Central PPE stations that contained gowns, gloves, hand sanitizer, disposable surgical masks, and face shields were set up throughout the clinic. Shortage of PPE or testing supplies was never an issue. Large waste disposal containers were added to all exam rooms so that care team members could doff prior to leaving the exam room and hand sanitizers were placed directly inside and outside each room.

Discussion

Having a clinical space dedicated to seeing patients with COVID related symptoms allowed for numerous partnerships to flourish. For example, space was dedicated within the clinic to support a clinical trial for COVID positive patients. Additionally, lung ultrasound imaging was trialed

in the clinic to augment diagnosis and to gauge severity of the illness.

One area that was particularly challenging was staffing and utilization. We felt it was very important to staff the clinic with all primary care disciplines, including family medicine, pediatrics, and internal medicine. All staff that were deployed to work in the COVID Care Clinic did so by volunteering; given the high-risk environment. Primary Care leadership felt it was very important to ensure that all staff understood the risk and chose to be part of the clinical team. Institutional infection prevention and control advised against staff floating between the COVID Care Clinic and other “clean clinics.” Therefore, once staff committed to working in the COVID Care Clinic, that became their primary location. The health status of our healthcare workers were closely monitored with daily temperatures, review of symptoms, and asking employees to alert leadership for close contacts and if undergoing testing based on symptoms. Due to stringent PPE requirements, no staff tested COVID positive.

Capacity and fill rates are metrics that are closely monitored and heavily scrutinized in primary care. Typically, the Mayo Clinic Family Medicine clinics operate optimally when meeting 85% capacity. Being the COVID Care Clinic was primarily an acute care clinic, appointment slots were filled same day, making it especially challenging to ensure an adequate staffing model with a multidisciplinary team. Forty-two 30-min appointment slots were available utilizing 3 schedulable providers for those slots. After 2 months of operating 6 days/week, the average provider visit fill rate was 42.4%. While this was considerably lower than the average primary care clinic fill rate, this allowed 852 patient visits (Figure 2) to be completed in an outpatient acute care setting, rather than the emergency department.

Initially, receiving specialty referrals was also a challenge. Being the clinic was established in response to an ever changing need, exiting clinical orders and calendars were utilized. This meant that referral orders to the COVID Care Clinic were not easy to find or access within the electronic health record for our specialty practice partners, including General Internal Medicine. Building new orders to accommodate a direct referral, beginning with the virtual visit, took almost 3 weeks.

Conclusion

The COVID pandemic presented the challenge of caring for the COVID patient while maintaining the high standard of care for the remainder of our patients. Primary care providers and the operations team once again had to quickly adapt to the current environment by converting 1 of our Family Medicine Clinics into a COVID Care Clinic. By dedicating a clinic to this purpose we were able to minimize intermingling of COVID potential patients from other patients while decreasing

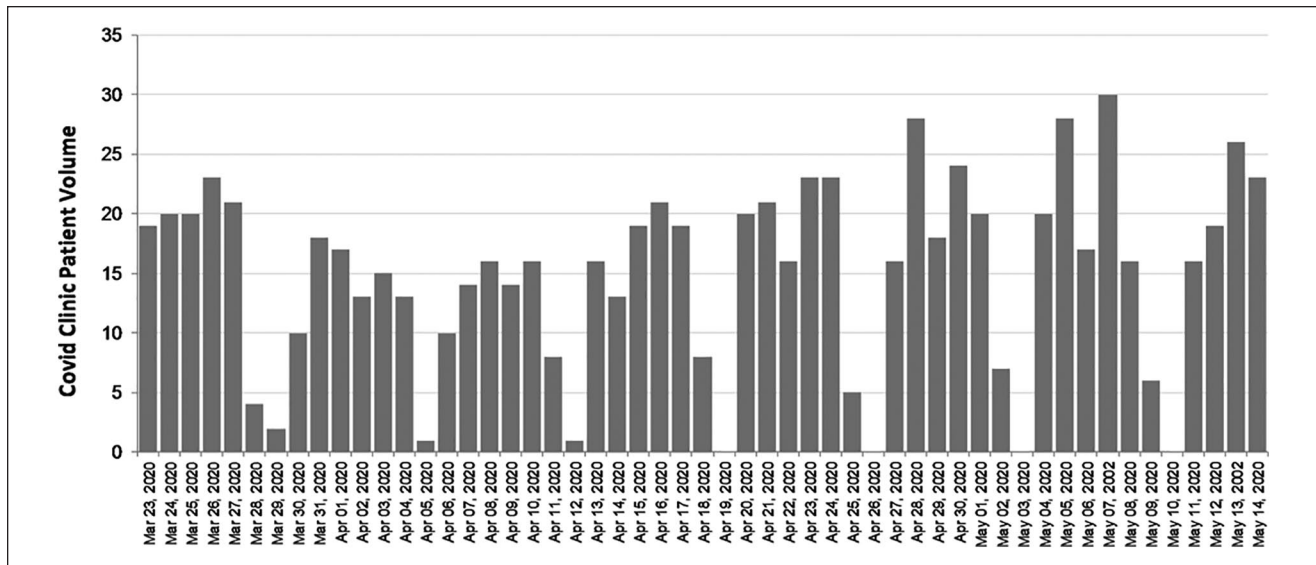


Figure 2. COVID Care Clinic patient volume.

the burden on the Emergency Department. This was achieved through a multidisciplinary effort of volunteers. While a number of challenges were discussed, we feel it still played a vital role in the fight against the spread of COVID-19.


Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Nathan A. Jacobson  <https://orcid.org/0000-0001-7260-2084>

References

1. World Health Organization. Novel coronavirus (COVID-19). World Health Organization. <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19—11-march-2020>. Accessed June 12, 2020.
2. Minnesota Department of Health. Health officials confirm first case of novel coronavirus in Minnesota. <https://www.health.state.mn.us/news/pressrel/2020/covid19030620.html>
3. Walensky RP, Del Rio C. From mitigation to containment of the COVID-19 pandemic: putting the SARS-CoV-2 genie back in the bottle. *JAMA*. 2020;323:1889-1890.
4. Shah A, Challener D, Tande AJ, et al. Drive-through testing: a unique, efficient method of collecting large volume of specimens during the SARS-CoV-2 (COVID-19) pandemic. *Mayo Clin Proc*. 2020;95:1420-1425.