

Background

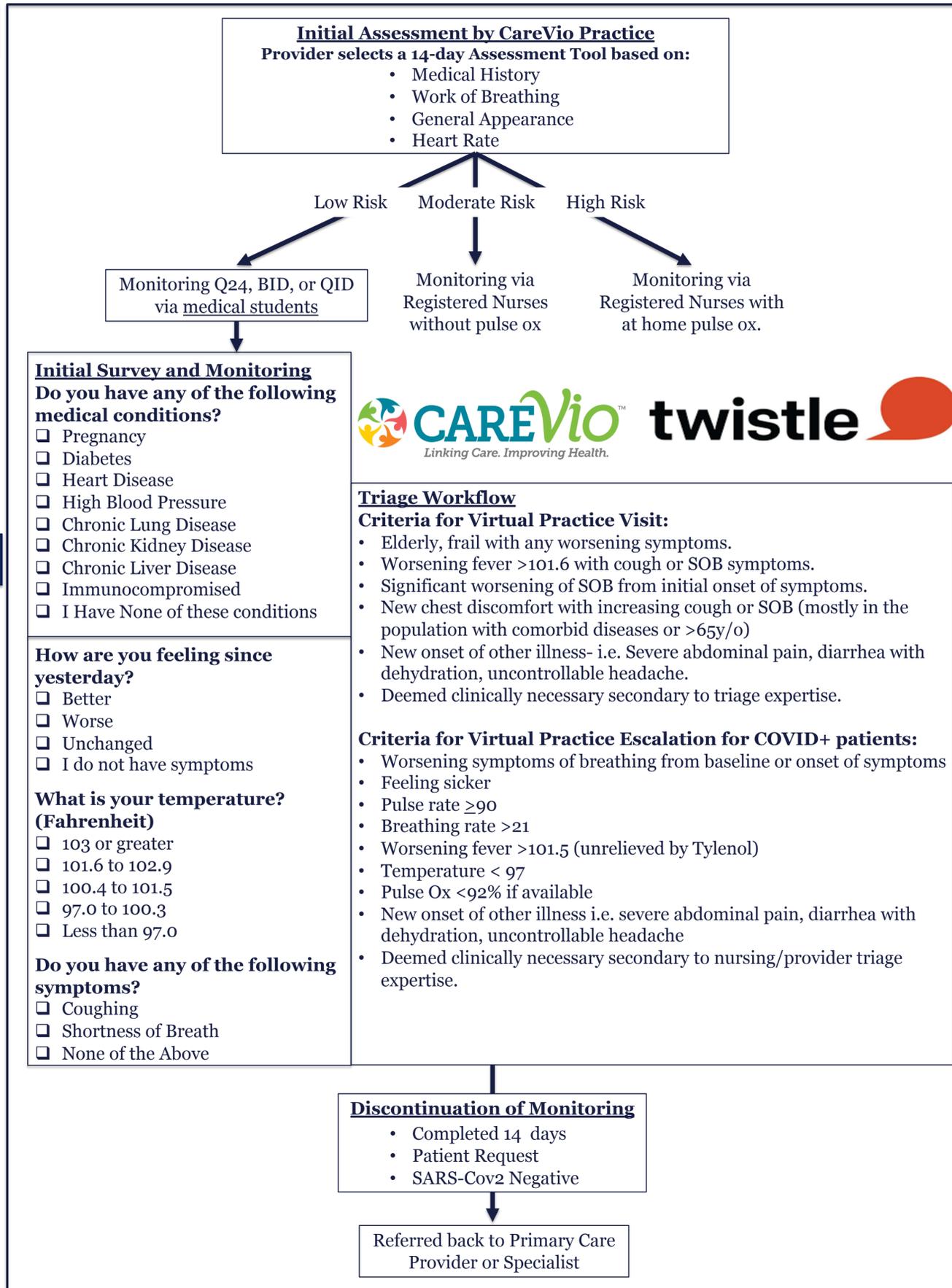
SARS-Cov2 arrived in Delaware on March 11, 2020. By March 22, 2020, stay at home orders were in place¹. During this time, CareVio, a subsidiary of ChristianaCare, was tasked with developing a strategy to monitor the Delaware community. CareVio repurposed Twistle – a telemonitoring application utilized to distribute symptom related surveys and conduct text message conversations for follow up. This service had the capability to act as a virtual information desk and triage patients to be seen by virtual practice providers or the emergency department. Patient monitoring via Twistle was initiated on March 18, 2020 and medical students from Sidney Kimmel Medical College and Philadelphia College of Osteopathic Medicine assumed the role 7 days later.

Methods

Patients with known exposure or suspected/confirmed SARS-Cov2 infection were referred to our service in the following ways:

- Primary Care Provider
- Outpatient Community Centers
- Medical Aid Unit
- CCHS Employee Health
- Emergency Room
- Poultry farm employees

An intake visit was conducted by a Virtual Practice provider who allocated them to low, moderate, or high-risk 14-day monitoring. Medical students were responsible for managing the low risk cohort which was staffed from 8:00AM-9:00PM seven days a week. Low risk Twistle surveys were sent out to patients on a Q24, BID, or QID basis. Frequency was determined during the intake visit. Survey content can be seen in the central algorithm. If a patient reported feeling “Better,” they did not receive a response unless they initiated a conversation. Patients feeling “Unchanged” or “Worse” were triaged to determine the need for a visit with a provider. Patients were discontinued from Twistle after testing SARS-Cov2 negative, finishing their 14-day monitoring, or at the patient's request. If a student or patient had concerns regarding discontinuation a new 14-day workflow would be initiated.



Data

The status of SAR-Cov2 in Delaware as of May 19th, 2020¹:

- Positive Cases: 8,194
- Deaths: 310
- Mean number of new cases a day: 58.7

On May 19th CareVio's Twistle metrics were as follows:

- Low Risk Population:
 - Total Enrollment: 2491 (91% of Twistle population)
 - Currently Enrolled: 471 (94.7% of Twistle population)

Discussion

Medical students will continue to staff this service until they return to the clinical environment on June 7th. The public response has been positive and many patients have expressed their gratitude:

“I can't begin to thank you and your entire team for all your patience with me, and your lovingness and kindness for my well-being.”

“Thank you very much for checking on me each day. I was comforted knowing I could contact you if needed.”

“Thank you for this great service! Everyone I encountered during this was caring, empathetic, and professional. I have nothing but the highest praise and gratitude for the wonderful care I received during my illness!!”

The small fraction of the patients who were not satisfied with their experience often had a misunderstanding of the service and were expecting care beyond SARS-Cov2 symptoms. With this in mind, improvements to this service include setting patient expectations prior to enrollment. We also recognize a large discrepancy between our population size and the number of cases in Delaware. Increasing community and physician awareness of the telemonitoring we provide may close the gap. The major limitations of our triage service include limited physical exams and delays in patient response time. We believe this service has proven to be an effective mode of care and could be adapted in the future to function as a formal outpatient triage. Research related to patient satisfaction, reduction in unnecessary emergency room visits, and CareVio's overall role in monitoring patients with SARS-Cov2.

References

1. Delaware Division of Public Health. (2020) Coronavirus Data Dashboard. Retrieved from <https://myhealthycommunity.dhss.delaware.gov/locations/state>