Over the past year, we have seen a huge shift in the health care industry. With the COVID-19 pandemic threatening to overwhelm hospitals nationwide, the critical role that nurse telephone triage plays in preventing surge has become even clearer. However, prior to the COVID-19 pandemic, federal emergency preparedness plans, including the Pandemic Influenza Triage Tools (Centers for Disease Control and Prevention [CDC], 2016), did not include telephone triage as a means to prevent surge. These tools also do not mention the critical pediatric-specific considerations that must be taken under advisement when rapidly assessing patients during a pandemic associated with influenza-like illness (ILI) to ensure proper and timely disposition. We hope to provide an overview of our organization’s work during the early days of the pandemic to close this critical gap.

Increasing Capacity

As the first wave of COVID-19 began to hit the nation, our urban, academic medical center began to increase the capacity by which we could manage nurse telephone triage. This included an expansion of hours, moving from standard operating hours to full 24/7 coverage. This helped to ensure that when a patient called our COVID-19 hotline, they were able to speak with a registered nurse (RN) almost immediately. To allow for this to happen, our Access Center expanded the team of RNs from three to 19 RNs per day to include those nurses redeployed from other areas of the health system. Ambulatory Clinical Educators, in collaboration with the Access Center RN Clinic Manager, completed education and training, and assessed competency for those new to the role of telephone triage.

Education and training for those new to telephone triage included an introduction to the concept of telephone triage, an overview of the COVID-19/ILI-specific protocols, and a review of electronic medical record (EMR) documentation functionalities of which the nurse may not have been as familiar. These functionalities include documentation of a telephone encounter versus a triage encounter, use of the Epic Inbasket functionality, taking the baton, and forwarding of messages. To achieve the learning objectives, several computer-based learning modules were created related to telephone triage. The EMR training class until this point in time was held in a live training environment, and was condensed from 8 to 4 hours. Training was conducted via asynchronous modules with virtual simulations that could be completed in the playground environment. Competency was assessed by an RN preceptor with whom a new nurse was paired for each of their first few shifts in the Access Center.

Building Pediatric Telephone Triage Protocols

Simultaneously occurring was the building of the telephone triage protocols. Early in the pandemic, signs, symp-
toms, and recommendations were changing daily, sometimes multiple times within a day. It was imperative, therefore, for triage protocols to follow the same format as our current protocols and that they be clear, concise, complete, and widely disseminated. To achieve these goals, our Access Center team chose to create population-specific triage protocols that best aligned with the CDC’s most current recommendations. These triage protocols included EMS/first responder, health care worker/employee, and adult greater than or equal to 18 years of age. Missing were concrete recommendations for infants and children aged 18 years and younger.

Throughout the first few days, the Access Center, as well as our Pediatric Primary Care and Specialty Care Clinics, began to receive hundreds of calls of concerned parents seeking information of what to do if they thought their child had been exposed to COVID-19. It was at this point our team recognized the need to develop institution-specific, pediatric protocols for the triage of ILI in the context of the COVID-19 pandemic. This required a team of key stakeholders with specialized knowledge in infectious disease management, pediatrics, and nursing telephone triage.

The clinical content of the triage was designed to have high sensitivity for identifying severe symptoms by taking into consideration the age of the patient and symptoms reported. One example of this is the building of a specific question related to fever in infants less than or equal to 12 weeks of age with simultaneous ILI symptoms into the protocol. The triage protocol includes four endpoints for symptomatic patients: 1) self-care, 2) non-urgent evaluation via telehealth visit, 3) urgent evaluation, and 4) emergent evaluation. If patients are classified as ‘non-urgent’ evaluation, our institution still wanted to schedule a visit both for the parent and caregiver piece of mind but also because we recognize the physiology of the pediatric patient lends itself to rapid deterioration with ILI symptoms. Therefore, these patients were sent to a video visit with a pediatrician between the hours of 0700 and 2300. During off-hours, the on-call pediatrician is paged to determine next steps for the patient.

Launching the Protocols

When our pediatric telephone triage protocols launched, they had been reviewed by an interdisciplinary team, including our Chief Medical Officer, Pediatric Infectious Disease Specialist, Pediatric Primary Care Medical Director, Associate Vice President of Access Center, Director of Access Center, Access Center RN Manager, and Director of Ambulatory Clinical Practice. The launch of the pediatric-specific protocols was well-received by our triage RNs.

During the time the centralized Access Center supported pediatric ILI triage (March 2020-August 2020), the Access Center had received more than 1,400 pediatric ILI symptom-based calls requiring telephone triage for ILI symptoms. Of these calls, 1,121, or nearly 80%, were routed to video visits. These video visits each represent the reduction of potential infectious exposures and transmissions. In the midst of a pandemic with a goal of flattening the curve, every visit that can be transitioned in this way is critical to yielding success.

Conclusion

We briefly described the rapid expansion of our Access Center and implementation of pediatric specific telephone triage protocols. Although this is a small snapshot of our process, the importance of nurse telephone triage, and most especially pediatric telephone triage, in the pandemic planning process has an enormous potential to prevent surge of hospitals and health systems. It has also shown that it can quickly connect patients with the appropriate care venue, thereby preventing unnecessary emergency department and urgent care visits. During the COVID-19 pandemic, these functions are particularly critical. Although more work is needed to improve the specificity of these tools, the operational benefits and 24-hour patient access alone warrant the consideration of use for similar tools in other settings.

Reference