Implementing Physical Distancing in the Hospital: A Key Strategy to Prevent Nosocomial Transmission of COVID-19

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Hospitalists serve as frontline healthcare professionals caring for the increasing number of COVID-19 patients in the United States. The safety of hospitalists and other frontline healthcare workers is paramount to preventing high nosocomial transmission as has been reported in several other countries. Much effort to date has rightly focused on ensuring healthcare workers have appropriate personal protective equipment (PPE) given the known increased risk of nosocomial infection to healthcare workers. However, another important strategy to prevent nosocomial transmission is to implement "social distancing," or avoiding close contact with others. While this approach has received considerable press with regards to implementation in communities, social, or physical, distancing in the hospital is also a critical way to prevent nosocomial transmission and ensure the health and welfare of our workforce to meet the challenge. The Centers for Disease Control and Prevention (CDC) defines close contact as less than 6 feet away for over 10 minutes.[1] Given the myriad clinical interactions that occur within teams in the hospital, such distancing can prove challenging.

At the University of Chicago Medicine in Illinois, our hospitalist group was an early adopter of implementing several strategies to facilitate physical distancing in the context of clinical care to minimize community transmission of COVID-19 among healthcare professionals. We describe how to implement physical distancing effectively in specific hospital settings, including some challenges and strategies to surmount them.

EDUCATIONAL CONFERENCES AND ADMINISTRATIVE MEETINGS

Educational conferences and administrative meetings need to be transitioned to virtual meetings. While it may be easy to broadcast a conference in lieu of meeting in a conference room, it is critical that hospital clinicians do not "huddle close together" in front of a computer, which would defeat the purpose of physical distancing. While "flipping the classroom" in preclinical and higher education is common, this method can be effective to deliver standard education followed by a virtual question and answer session or chat room.[2]

Educational discussions can also occur asynchronously through learning management systems, such as Canvas, or even closed social media channels, such as Slack, that enable discussions. These tools require training to work, so it is important to invest in education on the chosen platform to ensure that it functions smoothly. It is equally important that administrators become familiar with these tools while working remotely and can facilitate administrative meetings without difficulty. We created a one-page tip sheet to help ease the transition for department administrators. The tip sheet highlighted how to start a virtual meeting and meeting etiquette (eg, mute upon entry into the meeting, mute when not talking, announce yourself when talking) as well as ensuring that dial-ins could easily access the meeting by including one-touch options, when available, on calendar invites in addition to the weblink. A daily email update can be an important adjunct to administrative meetings to ensure critical updates are reaching all clinicians in a group and also preserves meeting time for clarifying questions.

CLINICAL WORKROOMS

Perhaps the biggest challenge is how many clinical workrooms in hospitals today are crowded with computers next to each other. Ventilation can also be poor, making conditions riskier. This makes implemention of social distancing extremely challenging, but also critical, given how much time hospital-based clinicians spend on computers and in their workrooms. The first step to achieving social distancing in the workroom is to take an inventory of how many people work there and get a log of the number of computers. Consider whether existing computers can be rearranged with a goal of keeping people 6 feet apart. For particularly cramped workrooms, this may require assigning computer spaces to physicians across a floor or several floors, using computers out on a unit, or using mobile computers to limit the number of people in the workroom at one time. We suggest working with physical plant leaders and Information Technology to reallocate mobile workstations, laptops, or desktops to conference rooms, patient visiting areas, and offices that are not being used. Because coronavirus can survive on surfaces for several hours, it is also important to stock work rooms with disinfectants to clean surfaces such as keyboards and desktops frequently. One other important thing to consider is whether computers can be assigned to specific teams or people to limit the use of a computer by multiple people.

ROUNDING, SIGN-OUT, AND MULTIDISCIPLINARY ROUNDS

Rounding

Perhaps one of the most fundamental hardships with physical distancing is how to conduct routine clinical care such as

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rounds, sign-out, or multidisciplinary rounds. Rounds on teaching services are particularly challenging given the number of people. At many teaching institutions, medical students are no longer on clinical rotations, which immediately reduces the number of people on teaching teams. The other thing to consider is how rounds are conducted. As opposed to a large team walking together, assign one person from the team as the liaison for the patient, which also has the added benefit of conserving precious PPE. Virtual rounding enables clinicians, including residents and attendings, to work together and decide the plan for the day without first crowding into a patient room. This is perhaps the most important cultural hurdle that one may face.

Another administrative hurdle and common concern is how to bill for such interactions. While federal guidance evolves, our institution created smartphrases for this type of virtual rounding whereby attendings attest to resident notes even if they did not physically see the patient. Additional information may be obtained from patients by calling them on their patient-room phones or by using telemedicine as some hospitals are implementing.[3] For large "mega" teams, split the team into smaller groups to facilitate continuity and easier conversations.

Sign-out

When feasible, it is important to transition to phone sign-out supplemented with viewing an updated shared sign-out, ideally electronically, for shift change. When using phone sign-out, it is ideal to implement a verbal read-back to ensure understanding and to keep your sign-out updated. Because using the telephone is not the most effective communication channel for sign-out, it is key to be vigilant with other sign-out best practices, such as using a standard template like IPASS[4] or another framework, prioritizing sick patients, and ensuring a focus on to-do and if/then items that are critical for the receiver to ensure understanding.[5]

Multidisciplinary Rounds

As multidisciplinary rounds typically occur either at the bedside or in a conference room, it is key to ensure that these occur virtually whenever possible. One option is to use conference calls or video chat (eg, Zoom) for multidisciplinary rounds whenever possible. Calendar invites or paging reminders can be used to prompt teams when to call in to discuss patients. Because multiple people are entering a virtual room at once, it is important to establish an order or have a leader orchestrate who is next. In addition, given the importance of multiple people contributing to the discussion, it is also equally important for those speaking always to announce who they are and their

role (eg, social worker, case manager, physical therapist) since it may not be possible to recognize people's voices alone. This is where visual recognition can be helpful through use of institutional video conferencing that enables hearing and seeing someone. Further, it is important to ensure that the platform being used is HIPAA compliant.

CALL ROOMS

Call rooms in hospitals can be particularly challenging if they are shared. Finding additional call rooms may require use of cots or reallocation of patient rooms. It is also possible for hospitalists to consider air mattresses in their offices or other private spaces to avoid sharing call rooms. Consider assigning the same call room to the same few people over the course of a rotation or period to avoid many people sharing one room. If a hospital is converting units to group patients under investigation or those who are COVID-19 positive, reallocating call rooms may be necessary to accommodate new teams. Lastly, it is important to communicate proactively with environmental services staff to make sure all call rooms are equipped with cleaning supplies and hand sanitizer and are cleaned daily to avoid nosocomial transmission.

CONCLUSION

Containing nosocomial spread of coronavirus is particularly challenging for hospitals because of how contagious the virus is, the extreme shortage of PPE, and lack of mass testing to identify those who are sick. Therefore, physical distancing in the hospital is critical to ensure the health and well-being of the health professional workforce during the pandemic.

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