Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

COMMENTARY

Communication with Health Care Workers Regarding Health Care–Associated Exposure to Coronavirus 2019: A Checklist to Facilitate Disclosure

Paige Wickner, MD, MPH; Tricia Hartley, MBA, MPH; Hojjat Salmasian, MD, MPH, PhD; Karthik Sivashanker, MD, MPH, CPPS; Chanu Rhee, MD, MPH; Karen Fiumara, PharmD; Andrew Resnick, MD, MBA; Mallika L. Mendu, MD, MBA

During the current coronavirus 2019 (COVID-19) pandemic, health care workers (inclusive of all employees who interface with patients, from physicians and nurses to transportation and cleaning staff) are a crucial frontline resource and are at high risk of acquiring the infection. Lessons learned from previous epidemics of Middle East respiratory coronavirus, severe acute respiratory syndrome, Ebola, and avian flu include the importance of protecting health care workers from exposure and factors associated with shortfalls in prevention of hospital-associated infections.[1–3] Studies from various countries describe efforts to protect health care workers during the COVID-19 pandemic (including wearing personal protective equipment [PPE], distancing, and handwashing), but there have been many reports of health care workers infected across the globe.[4–6] The World Health Organization and the Centers for Disease Control and Prevention have outlined risk assessment and management postexposure, which includes categorization of risk level for infection.[7,8] However, there is limited guidance for health care institutions regarding how to communicate and support health care workers after a potential exposure. Given the risk from interactions with affected patients and stress associated with providing care, standardized, effective communication to health care workers regarding a potential exposure is important. This communication should encompass clear information regarding isolation, self-monitoring, testing, and available support for health care workers. During this time of crisis and evolving care needs, using a standardized, comprehensive tool such as a checklist to conduct complex disclosure conversations is vital.

In this commentary, we outline a practical checklist for communication with health care workers regarding potential health care–associated exposure, to provide disclosure and support (Table 1). These steps include identifying who will perform the disclosure; initiating the disclosure; providing occupational health contact information; reviewing additional exposures; reviewing symptomatology; providing testing and isolation guidelines based on severity of symptoms; determination regarding when to return to work; identifying and providing needed resources; and providing direct contact information for follow-up questions. We detail the various key elements of the process below.

THE DISCLOSURE AND COMMUNICATION TEAM

As the COVID-19 pandemic and number of health care workers exposed evolves, institutions will be increasingly coping with disclosure and communication. Given variation in personnel across institutions, it is important to establish which departments (occupational health, infection control, quality and safety, human resources) will be responsible for communicating with and supporting potentially exposed health care workers. Creating a robust process allows all parties involved to understand their role and responsibility in investigation and disclosure. Adoption of digital support tools, such as self-monitoring reporting, tracking, and alert systems, can support operations related to exposures and disclosures. Notably, guidelines continue to evolve and will depend on the phase of the pandemic, but they should be referenced in making timely decisions such as work exclusion. Regardless of the specific department and evolution of guidelines, the guidance outlined in the checklist can be tailored to the needs of different institutions. To ensure an effective process, having staff trained in providing disclosures is important, and the checklist can facilitate training.

LAYING THE GROUNDWORK FOR EFFECTIVE DISCLOSURE

Prior to disclosure, investigation into the details of the exposure, preferred language of the affected health care worker, and establishing means of communication are necessary to ensure effective communication. At our institution, to avoid further exposure and facilitate rapid

Table 1. COVID-19 Exposure: Checklist for Health Care Workers

Step	Checklist Questions	Additional Guidance
1. Identify disclosure team.	**Which department(s) will you include in outreach to health care workers?** [ ] Quality/safety/risk [ ] Occupational health [ ] Social work department [ ] Human resources [ ] Other_____ **Disclosure training provided to staff?** [ ] Yes [ ] No	Depending on the infrastructure of your organization, determine which department is best to facilitate and support exposure disclosures to your health care workers.
2. Initiate disclosure.	**Health care worker contacted?** [ ] Yes [ ] No [ ] Unable to reach **Health care worker's preferred language confirmed?** [ ] Yes [ ] No [ ] Unknown **Interpreter services activated?** [ ] Yes [ ] No [ ] Not applicable	Provide a transparent, open disclosure to the health care workers. Ensure that the disclosure is performed in their primary language, with medical interpreters available, at the appropriate literacy level, as necessary. Offer reassurance that you are here to help them navigate through the best next steps, and to connect them with the resources they need. **Suggested communication:** *"We believe you may have been exposed to a health care worker or patient who tested positive for coronavirus (COVID-19). To assist you with the next steps, we have information, resources, and support tools available to ensure that you and your loved ones have the support you need."*
3. Provide occupational health contact information.	**Occupational health contact information provided?** [ ] Yes [ ] No [ ] Not applicable	If available, remind the health care workers of their institution's occupational health resources available to them. **Suggested communication:** *"Our occupational health department can help you get testing and medical services, if needed. They are available at X."*
4. Review additional exposures.	**Additional exposure list provided?** [ ] Yes [ ] No [ ] Not applicable	Emphasize the importance of the health care worker identifying any patients or colleagues they have been in close contact with recently. Ask them to provide a list of individuals to contact regarding possible exposure. **Suggested communication:** *"There may be others, including patients or coworkers, whom you have recently been in contact with who may have also been exposed. Please help us to identify any individuals you think may have been exposed. We are happy to reach out to these individuals to help them protect themselves and others from further spread of coronavirus."*
5. Review symptoms.[*,†]	**COVID-19 symptoms reviewed?** [ ] Yes [ ] No **Confirm if health care worker is experiencing symptoms, with level of severity identified?** [ ] Yes [ ] No **Asymptomatic health care worker recommendations reviewed?** [ ] Yes [ ] No	Review known COVID-19 symptoms with the health care worker, keeping in mind that health literacy levels vary. Ensure understanding by having the individual repeat back the symptoms they should be looking out for and encouraging them to raise any questions or concerns. Symptoms include: • Fever (temperature greater than 100.0°F) • Cough • Shortness of breath • Sore throat • Running nose • Sore muscles • Loss of taste or smell

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Table 1. (*continued*)		
Step	**Checklist Questions**	**Additional Guidance**
		Depending on whether the health care worker reports having experienced any symptoms, and to which degree of severity, next steps may vary. **Suggested communication:** *"COVID-19 symptoms can vary. Have you been experiencing any symptoms of a viral respiratory infection, such as fever, coughing, sore throat, or sore muscles?"* *[If yes]* *"I'm sorry to hear you aren't feeling well. I'm here and I'm going to help you."* *[If no]* *"That is good to hear. Even if you are not currently experiencing any symptoms, you should continue taking your temperature twice daily and pay attention to any changes to your health, such as a cough or shortness of breath."*
6. Provide testing and isolation guidelines[*,†]**—if no symptoms or mild symptoms (skip if N/A).**	**Isolation guidelines reviewed?** [ ] Yes [ ] No [ ] Not applicable **Relevant testing information provided?** [ ] Yes [ ] No [ ] Not applicable **Available resources offered?** [ ] Yes [ ] No	If the health care worker is not experiencing any symptoms or only mild symptoms (sore throat, cough, fever, etc.), emphasize the importance of isolating themselves for the next 14 days. This includes protecting family members from exposure. This entails: • Staying physically away (6 to 8 feet) from others as much as possible • Utilizing a separate bedroom and bathroom if possible • Limiting contact with pets • Avoiding personal household items (including utensils, towels and personal items) • Cleaning "high-touch" surfaces daily[*] Keep in mind, isolation may present a significant financial and social burden to some health care workers. An assessment of the home situation may be helpful, regarding the number of individuals in the residence and whether there are individuals at higher risk from infection. Be sure to ask if there are any resources they need to ensure that they can safely and effectively quarantine themselves. If yes, direct them to resources outlined in **Step 9.** Explain that, should the health care worker become symptomatic, they may need to be tested for the virus. Depending on the health care system communicating the disclosure, instructions on testing may vary. Most importantly, make sure the instructions are clear, and the health care worker has the resources they need, such as transportation, for testing to take place. If the individual does not have the resources required, direct them to the resources listed in **Step 9.** **Suggested communication:** *"To be careful, there are several steps you can take to help limit the spread of this disease. The most important is isolating yourself as much as possible for the next 14 days. This means staying physically away from others, including your pets, using a separate bedroom and bathroom than others in your household, avoiding personal household items, and cleaning surfaces in your house that you touch routinely daily. If you develop any of the symptoms we discussed, we recommend that you get tested. Please call X number to order and set up a time for you to get tested. The testing site is located at X."*

Table 1. (*continued*)

Step	Checklist Questions	Additional Guidance
7. Provide testing and isolation guidelines[*,†]**—if severe symptoms (skip if N/A).**	**Emergency department contact information provided?** [ ] Yes [ ] No **Contact made to emergency department on incoming patient?** [ ] Yes [ ] No [ ] Unable to reach **Transportation available ?** [ ] Yes [ ] No (If no, provide available transportation resources—ambulance, etc., or consider 911.)	If the health care worker is experiencing severe symptoms (shortness of breath, fever, etc.), ensure that the patient can be transported to the closest emergency department. **Suggested communication:** *"We recommend that you be seen at the nearest emergency department. I will call the department in advance for you to ensure that proper COVID-19 precautions are in place and that they are prepared to help you. Do you have transportation available to you? If not, I will help facilitate transportation."*
8. Make determination regarding returning to work.		Based on the CDC guidelines referenced below, if a health care worker is considered to be at low risk for exposure, they may continue to work with monitoring. If considered a medium or high risk, the health care worker must be furloughed from work for 14 days after the last exposure. On days health care workers are scheduled to work, health care facilities should consider measuring health care workers' temperature and assessing symptoms prior to starting work. If they develop fever (measured temperature ≥ 100.0° F or subjective fever) OR respiratory symptoms, health care workers should immediately self-isolate (separate themselves from others) and notify their local or state public health authority or health care facility promptly so they can coordinate consultation and referral to a health care worker for further evaluation.
9. Provide resources.	**All health care worker's concerns/questions addressed?** [ ] Yes [ ] No **Social work department referral made?** [ ] Yes [ ] No **Available resources offered?** [ ] Yes [ ] No	Have a list of local resources that may be able to assist patients with a variety of needs prepared.. Should a health care worker voice a concern related to any of the items below, be sure to communicate how they are best able to access the resources they need. Consider having the contact information for your institution's social work and/or care coordination department available for additional assistance. • Food security • Housing limitations or security • Transportation assistance • Caretaking/caretaker support • Psychological distress • Persons with disabilities • Intimate partner violence or domestic abuse • Other **Suggested communication:** *"There are resources available to help you take these necessary steps to prevent spread of COVID-19. Is there anything you need in order to follow these steps? If you would like, I am happy to have our social work department reach out to assist you."*
10. Provide additional contact information.	**Additional contact information provided?** [ ] Yes [ ] No	Provide the health care worker with direct contact information of the health care institute should any additional questions or concerns arise. **Suggested communication:** *"If any other questions or concerns arise, you can always call X for more information and support."*

* Guidance related to symptomatology, testing, and isolation provided by the World Health Organization (WHO) (see reference 7 at the end of this article) and the Centers for Disease Control and Prevention (CDC) (see reference 8 at the end of this article).
† Guidance provided by WHO and the CDC may evolve over time and should be referenced for updates.
N/A, not applicable.

disclosure (within 24 hours of the exposure), phone calls are the preferred means of communication. Recognition that health care workers across institutions have diverse socioeconomic status, education, and cultural backgrounds is important in considering how information is relayed and what resources are made available. When an exposure is identified, disclosure should occur in an open, transparent manner with sensitivity to both the primary language spoken and literacy level. Interpreters should be readily available, and clear, simple language should be used. Mailing or e-mailing written instructions in the preferred language may be useful. For all health care workers, it is essential to provide assurance that there is support as the health care worker navigates through this process.

CURTAILING SPREAD THROUGH EFFECTIVE IDENTIFICATION AND DISCLOSURE

Timely disclosure provides the opportunity to stem community spread by facilitating isolation, testing, and removal from the workforce. Similarly, asking the health care worker to identify others who may be at risk, including other health care workers, patients, and caregivers, can facilitate isolation and testing of other potentially infected individuals. Ongoing communication may be needed if the provider needs (1) time to construct a list of close contacts at risk or (2) time to process the information about disclosure. This open, ongoing communication can play a crucial role in curtailing spread.

PROVIDING CLARITY TO MITIGATE PSYCHOLOGICAL STRESS

The checklist facilitates disclosure with a clear, sequential process and emphasizes the importance of offering specific contact information and guidance regarding symptoms, testing, and isolation. Undoubtedly an exposure results in significant psychological stress and anxiety, and having one contact to engage in ongoing communication and address questions will reduce confusion. Similarly, understanding potential symptoms; the "where, when, how" of testing; and how to protect family members from exposure can mitigate the stress that arises from uncertainty. Finally, the question of returning to work and need for isolation may evolve with changing guidelines. Disclosure teams should have a clear plan based on updated guidance and lay out the next steps for the health care worker. Managers should be provided parallel information to avoid confusion and misinformation.

PROVIDING ESSENTIAL RESOURCES

Health care workers will have varied financial means and available resources; therefore, providing a list of resources

regarding food security, housing security, and transportation assistance is key.[9,10] Social workers can play an important role in this process. Not providing these resources to affected health care workers increases the likelihood of community transmission and results in additional stress on the provider and dependents. For communities in which schools and child care centers are closed as part of social distancing protocols, resources for health care workers with children are critical. Examples include offering emergency day care facilities, in-home day care assistance, and flexibility regarding remote work when possible. Similarly, for some, social distancing within the home may be challenging due to the number of individuals, size of residence, or individuals at higher risk of severe infection. Providing temporary paid housing (for example, in the form of hotel accommodations) may be necessary. In addition, providing psychological support is of utmost importance, and institutions should provide adequate services to support mental health. Health care workers dealing with an exposure have to contend with the risk of illness, loved ones affected, and financial stressors as a result of time away from work, and mental health support can facilitate wellness. Peer support can be helpful, as with other safety events or exposures. Finally, reiterating a clear action plan and contact information as questions arise is important in supporting health care workers.

CONCLUSION

The steps outlined in this checklist were developed based on consensus expert opinion and are currently being employed at our institution. We are using an ongoing health care worker tracking and contact program that will inform the utility of the checklist. Although the checklist has not been formally studied, with respect to impact on outcomes, we believe that it can serve as a blueprint for other institutions tackling the challenge of expanding community spread of COVID-19. During this crisis, ensuring health care worker safety and wellness is important to ensure continued resiliency and health of this essential workforce. Recognizing that health care workers are among those most vulnerable to illness, and proactively addressing exposures, are critical to stemming COVID-19 spread.

Paige Wickner, MD, MPH, is Medical Director for Quality and Safety, Department of Quality and Safety, Brigham and Women's Hospital (BWH), Boston. **Tricia Hartley, MBA, MPH**, is Patient Safety Program Manager, Department of Quality and Safety, BWH. **Hojjat Salmasian, MD, MPH, PhD**, is Medical Director of Data Science and Analytics, Department of Quality and Safety, BWH. **Karthik Sivashanker, MD, MPH, CPPS**, is Medical Director of Quality, Safety, and Equity, Department of Quality and Safety, BWH. **Chanu Rhee, MD, MPH**, is Assistant Hospital Epidemiologist, Department of Quality and Safety, BWH. **Karen Fiumara, PharmD**, is Executive Director of Patient Safety, Department of Quality and Safety,

BWH. **Andrew Resnick, MD, MBA**, is Senior Vice President and Chief Quality and Safety Officer, Department of Quality and Safety, BWH. **Mallika L. Mendu, MD, MBA**, is Medical Director for Quality and Safety, Department of Quality and Safety, BWH. Please address correspondence to Mallika L. Mendu, mmendu@bwh.harvard.edu.

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