

## Respiratory Illness Presenteeism in Academic Medicine: A Conceivable COVID-19 Culture Change for the Better

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**A**n intern is rotating on a medical ward in January 2018. Influenza is prevalent and hospital admissions are increasing daily. Despite receiving her influenza vaccine in October 2017, she develops fevers and myalgias. Due to time constraints, she does not get tested for influenza. She instead decides to work while sick to avoid payback of shifts.

She is now a hematology/oncology fellow in December 2020. She and her colleagues experienced the harrowing first wave of the COVID-19 pandemic. Unfortunately, community prevalence and hospital admissions are again rising. She adheres to mandatory masking and eye protection at work. Two days after attending a procedural workshop with lunch provided, she develops headache, myalgias, and sore throat. She contacts her supervisor, calls out sick, and initiates home isolation due to a positive result on a COVID-19 test performed through occupational health services (OHS). No patients are affected, but multiple colleagues are required to quarantine and others are pulled to provide coverage.

### PRESENTEEISM

Presenteeism, the act of attending work despite personal illness, can adversely affect individuals and organizations.<sup>1</sup> In a healthcare setting, transmissible illnesses contribute to complications in patients and missed workdays for staff. Prior to the pandemic, the rate of presenteeism among physicians was as high as 90%.<sup>2</sup> Such presenteeism may have contributed to medical errors and decreased work efficiency.<sup>3,4</sup> At our hospital in the Bronx, New York, a high annual prevalence of seasonal influenza fueled influenza clusters among patients and trainees, leading to presenteeism.

Our prior work on influenza-related practices in academic medicine revealed that 54% of trainees and 26% of program directors self-reported influenza-like illness (ILI) presenteeism. Drivers included desire to display a strong work ethic, desire not to burden colleagues, concern about colleagues' negative perceptions, and knowledge gaps in influenza transmission.<sup>5</sup>

### INFLUENCE OF THE COVID-19 PANDEMIC ON PRESENTEEISM

The COVID-19 pandemic has profoundly affected staffing models, infection prevention protocols, use of shared spaces,

educational conferences, visitation policies, and other habitual healthcare practices. The experience of post-graduate training during a pandemic has resulted in important mindset and practice changes that may decrease presenteeism. However, health systems need robust mechanisms to accommodate appropriate work absences due to illness. We hypothesize that ILI/COVID-like illness presenteeism will decrease significantly for the following reasons, which will have positive and negative impacts on the organization and individual.

### Shift in Accountability and Rewards

Our 2018 study revealed that presenteeism was motivated by a desire not to burden colleagues with extra clinical duties and to display conscientiousness. Despite a back-up call system, house staff were concerned about colleagues' negative perceptions. Accountability was perceived as fulfilling one's assigned clinical duties rather than protecting others from illness.

More recently, staff have experienced personal or family illness with COVID-19 or witnessed its rapid spread through the healthcare system. Forty-two percent (103 of 245) of our internal medicine residents had work absences resulting in 875 total missed workdays between February 29 and May 22, 2020. At the peak of the pandemic's first wave in the spring of 2020, 16% (38 of 245) were out sick.<sup>6</sup> We hypothesize that this experience resulted in a modified sense of accountability to peers and patients which manifested as a desire not to expose them to illness. Staying home while ill is now positively reinforced by supervisors, and presenteeism is recognized as harmful rather than commendable. However, increased utilization of the back-up call system to meet patient care demands is a secondary consequence.

### Consequences of Exposures

While trainees and program faculty acknowledged that presenteeism puts patients and coworkers at risk,<sup>5</sup> there was insufficient individual or institutional motivation to prevent it or fear its consequences pre-pandemic. An individual infected with influenza A may spread illness to one or two others, and several outpatient influenza treatments exist. Also, current trainees did not experience the prior respiratory viral pandemic (2009 H1N1 influenza A) as healthcare workers (HCWs).

In contrast, SARS-CoV-2 is more transmissible, with one infection resulting in two to three additional cases.<sup>7</sup> Hence, mandatory quarantine and isolation policies are more stringent than those for influenza. While reinfection with SARS-CoV-2 is rare,<sup>8</sup> HCWs can be exposed and quarantined

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multiple times, which potentially impacts paid sick leave for HCWs and elective-time for house staff pursuing fellowships. COVID-19 among HCWs also impacts secondary contacts, resulting in missed work and school days and strain on families. Hospital resource utilization for contact tracing and testing postexposure is significant. Unlike influenza, there are currently no oral antiviral treatments for outpatient COVID-19, and illness has been linked to chronic disabling symptoms.<sup>9</sup> Finally, absences due to illness or quarantine may disrupt education, training, and fulfillment of competencies and experiences necessary for advancement.

We predict that these potentially sweeping consequences will reduce presenteeism. An important aspect of health system pandemic planning must include adequate staffing to account for work absences due to illness or quarantine.

### Access to Occupational Health Services

Previously, staff reported barriers to seeking care from OHS. Therefore, this step was skipped, and HCWs managed their own symptoms, tested and treated each other for influenza, and returned to work at an arbitrary interval, without coordination with OHS protocols. OHS processes have since greatly improved. Employees with a COVID-19 exposure or concerning symptoms call the OHS hotline, are referred for same-day testing, and are given specific instructions regarding home quarantine or isolation and return to work. Follow-up to confirm fitness for duty is provided. In September 2020, an electronic screening tool assessing COVID-19 symptoms, exposures, and high-risk travel was implemented at our institution. Associates must present their clearance at hospital entrances.

### Protection From Vaccine

Survey results indicated that all house staff and program faculty received the annual influenza vaccine.<sup>5</sup> In New York State, public health regulations ensure a high rate of annual influenza vaccination among HCWs.<sup>10</sup> It is possible that house staff did not perceive that ILI symptoms were caused by influenza after vaccination, and that vaccinated colleagues were at lower risk of illness. The influenza vaccine also has a well-established safety record, contributing to good uptake among HCWs.

At the time of writing of this article, HCWs have been prioritized for COVID-19 vaccination. Studies are in progress pertaining to the degree of protection after one dose, incidence of new infections after first and second doses, and secondary transmissions from vaccinated individuals. Vaccination is likely to influence HCW behaviors as well as occupational health policies. We suggest that the impact of COVID-19 vaccination on subsequent HCW presenteeism be given precedence in future studies.

### Consistent Messaging and Communication

Prior to the pandemic, regular communication to staff on transmissible disease outbreaks scarcely occurred. Likewise, recurring training on infection prevention and personal protective equipment (PPE) protocols did not occur, and hospital policies regarding personal illness were not emphasized.

Harms of presenteeism were infrequently addressed outside of nosocomial outbreaks. The pandemic has positively impacted communication from hospital leadership. Infection control and occupational health guidelines are continually revised and disseminated. Program directors send regular COVID-19 updates to trainees. The infectious diseases program director serves as a graduate medical education liaison to hospital leadership. All staff are regularly updated on evolving policies and given resources to assist with personal illness. While many positive practice changes have occurred, a decrease in presenteeism may exhaust sick coverage and compromise patient care. We suggest that health systems create safer work environments and ensure adequate staffing to accommodate illnesses and quarantines.

## STRATEGIES TO CREATE SAFER WORK ENVIRONMENTS

- Conduct recurring staff PPE simulations spanning a range of communicable illnesses.
- Ensure adequate PPE for surge conditions.
- Implement occupancy limits for shared spaces, distanced seating, staggered mealtimes, plexiglass barriers, and portable air-filtration systems in rooms lacking windows.
- Invest in large-scale, serial testing of asymptomatic HCWs to identify early cases and enact quarantines prior to excess exposures.

## STRATEGIES TO ADDRESS STAFFING CONSTRAINTS IN ACADEMIC MEDICAL CENTERS

- Adopt nonpunitive coverage systems, reducing presenteeism by removing expectations to “pay-back” colleagues later.
- Establish a third-party notification system, reducing strain on house staff to find coverage. This will enable strategic use of the jeopardy pool by training program leadership.
- Establish a backup coverage pool populated by hospitalists and third-year residents who have completed fellowship match. Ideally, health systems should be prepared to compensate physicians for extra shifts.
- Engage nondeployed physician assistants or nurse practitioners to provide coverage for residents on a per diem basis.
- At a federal level, funding for trainee workforce expansion can occur to ensure staffing redundancy. The appropriate number of trainees should be determined by program leadership, balancing surge needs with education and autonomy. Likewise, training extensions due to COVID-related absences or deployments away from research or electives should be federally funded.
- Inpatient and community COVID-19 surges can result in large-scale furloughs of HCWs; hospital leadership should expediently implement public health recommendations allowing fully immunized HCWs to work after exposures while maximally adhering to infection prevention protocols. The COVID-19 pandemic has profoundly impacted academic

medicine. It is imperative to explore solutions to balance workplace safety, education, and training with staffing constraints and patient care needs. Resource investment and executive leadership support are required to achieve this balance.

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