Influenza Symptoms in Vaccinated Healthcare Workers in an H3N2-Dominant Season

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Background

- Influenza vaccination of healthcare workers is an important component of keeping patients safe, but must be paired with exclusion of ill healthcare workers (HCW) from work.
- CDC recommends exclusion from work until afebrile for 24 hours, but not all HCW with influenza develop fever and may still be at risk for spreading.
- Half of HCW with influenza in an H1N1-dominant season (2013-14) at our institution were afebrile.
- Due to concerns for influenza transmission among HCW and between HCW and patients, we have performed institution-wide HCW screening in the 2014-15, 2015-16, and 2017-18 seasons as well. In the 2016-17 season, we only screened HCW in the neonatal intensive care unit due to localized concerns for transmission.
- Overall employee vaccination rate at UCM has increased from 68.3% in the 2013-14 season to 91% in the 2017-18 season.

Methods

- Due to widespread influenza activity and concerns regarding transmission in the hospital, we instituted HCW screening on 1/29/18.
- Based on previous experience, HCW with fever or cough were referred for testing. Additional symptomatic HCW tested by their primary care providers were included.
- HCW were instructed to call a Flu Response Pager. During regular business hours (Monday – Friday from 7:30 am – 4:00 pm), testing was performed in the occupational health clinic. After-hours, the inpatient Advanced Practice Nurse Service team performed testing.
- Influenza vaccination status and symptoms (fever, cough, runny nose, sneezing, congestion, sore throat, chills, body aches) collected
- HCW with fever were sent home after being screened for influenza. HCW without fever could return to work with a mask pending test results (Fig. 1).
- To decrease cost and turn-around-time for results, testing was performed using Cepheid® Xpert® Flu/RSV. This platform cannot distinguish between Flu A types.
- Infection control practitioners (ICPs) contacted each influenza-positive HCW.
- Due to concerns for influenza transmission among HCW and between HCW and patients, we have performed institution-wide HCW screening in the 2014-15, 2015-16, and 2017-18 seasons as well. In the 2016-17 season, we only screened HCW in the neonatal intensive care unit due to localized concerns for transmission.
- Overall employee vaccination rate at UCM has increased from 68.3% in the 2013-14 season to 91% in the 2017-18 season.

Limitations

- Use of the Cepheid® platform limited our ability to identify Flu A type
- Data on the number of patients given oseltamivir prophyaxis as a result of exposure to an influenza-positive HCW are not available.

Conclusions

- Afebrile influenza illness is common. Current workforce guidelines which focus on management of febrile employees are insufficient to prevent exposure in the healthcare setting.
- Expanding employee influenza screening to include fever OR cough doubled the number influenza positive HCW identified.
- Despite excellent influenza vaccination rates, vigilance is critical to prevent influenza transmission in the hospital.
- HCW screening for influenza based on fever OR cough, exclusion from work, and identification of potential exposures can help keep patients and colleagues safe.

Acknowledgements

We gratefully acknowledge members of the following teams for their extraordinary efforts to make this important patient and staff safety program possible: Advanced Practice Nurse Inpatient Service, Hospital On-Call Administrators, and Infection Prevention Program.