SYNOPSIS
04/28/2020

Review of “First experience of COVID-19 screening of health-care workers in England”


**One-Minute Summary**

- This study examines a screening program of symptomatic health care workers (HCWs) (n=1,654) for coronavirus disease 2019 (COVID-19) in Newcastle, United Kingdom (UK) over the period of March 10-31, 2020.
- **Positivity rates among HCWs increased during the study**, from 5% (2/38) from March 10-11 to 20% (29/146) from March 30-31. From March 10-24, there was exponential growth in positive HCWs (exponential: \( r^2 = 0.99 \)), with a doubling time of 2.2 days (95% confidence interval: 2.0-2.4). From March 24-31, the epidemic curve transitioned to linear growth (linear: \( r^2 = 0.99 \)).
- The authors note that the change in the epidemic curve (on or around March 24) was temporally associated with social distancing measures implemented by the UK government (i.e., school closures on March 20 and widespread business closures and transport restrictions on March 23).
- There was no significant difference in COVID-19 positivity rates among HCW groups: directly patient facing (15%, 128/834), non-patient facing but potentially at risk of nosocomial exposure (16%, 14/86), and non-clinical (18%, 20/109) (p>0.05). Based on this finding, the authors concluded that isolation protocols and use of personal protective equipment in this setting prevented high levels of nosocomial transmission of COVID-19 from patients to HCWs.
- The authors also attest that their screening and rapid testing program allows HCWs to return to work faster, by increasing the confidence of HCWs with mild symptoms to self-isolate rather than continuing to work.

**Additional Information**

- In the screening program, HCWs e-mailed Occupational Health, reporting symptoms if applicable. If a HCW reported a new continuous cough or fever, they were tested for COVID-19 within 24 hours and then given instructions on self-isolation.
- The rationale for the screening program was to:
  - Maintain health of HCWs
  - Rapid identification and isolation of HCWs (to protect patients and community)
  - Enable quicker return to work for HCWs
HCWs were tested for COVID-19 through RT-PCR on combined nose and throat swabs. Results were reported to HCWs within 24 hours of testing.

The mean age of HCWs testing positive (41.7 years, standard deviation (SD): 12.1) was similar to those testing negative (40.6 years, SD: 11.5) (p=0.17).

HCWs were categorized into three groups (where information was available, n=1,029):
- Directly patient facing (e.g., doctors, nurses, porters): 81% (834/1,029)
- Non-patient facing but still potentially at risk of nosocomial exposure (e.g., cleaning, laboratory staff): 8% (86/1,029)
- Non-clinical (e.g., administrative, information technology): 11% (109/1,029)

The authors acknowledge that staff roles were unknown for one third of HCWs, potentially masking differences in positivity among groups.

PHO Reviewer’s Comments

- The authors do not provide details on criteria for returning HCWs; however, they do state that a negative test is not sufficient for work return in a still symptomatic HCW.

Citation


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