

## SYNOPSIS

04/28/2020

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

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## 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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